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ABSTRACT

This document provides a comprehensive list of best practices associated with effective and efficient programs for students with various disabilities: social/behavioral, sensory, physical, and cognitive and/or communicative. It is intended to assist in the design and implementation of least intrusive, chronologically age-appropriate, gender and culturally appropriate, positive, normative, and non-stigmatizing individualized education programs. Forms for quarterly review of student progress are included. Individual sections of the profile manual address the following aspects: (1) instructional methods; (2) behavior management methods; (3) assessment methods; (4) curriculum and the Individual Program Plan; (5) adaptive equipment and environmental modification; (6) medical-physical needs; (7) staffing and support services; (8) placement; and (9) communication. A detailed glossary provides definitions, explanations, examples and instructional suggestions for each profile term or concept printed in italics. (DB)

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SPECIAL NEEDS PROGRAM REVIEW PROFILE

By

DAVID BAINE

U.S. DEPARTMENT OF EDUCATION
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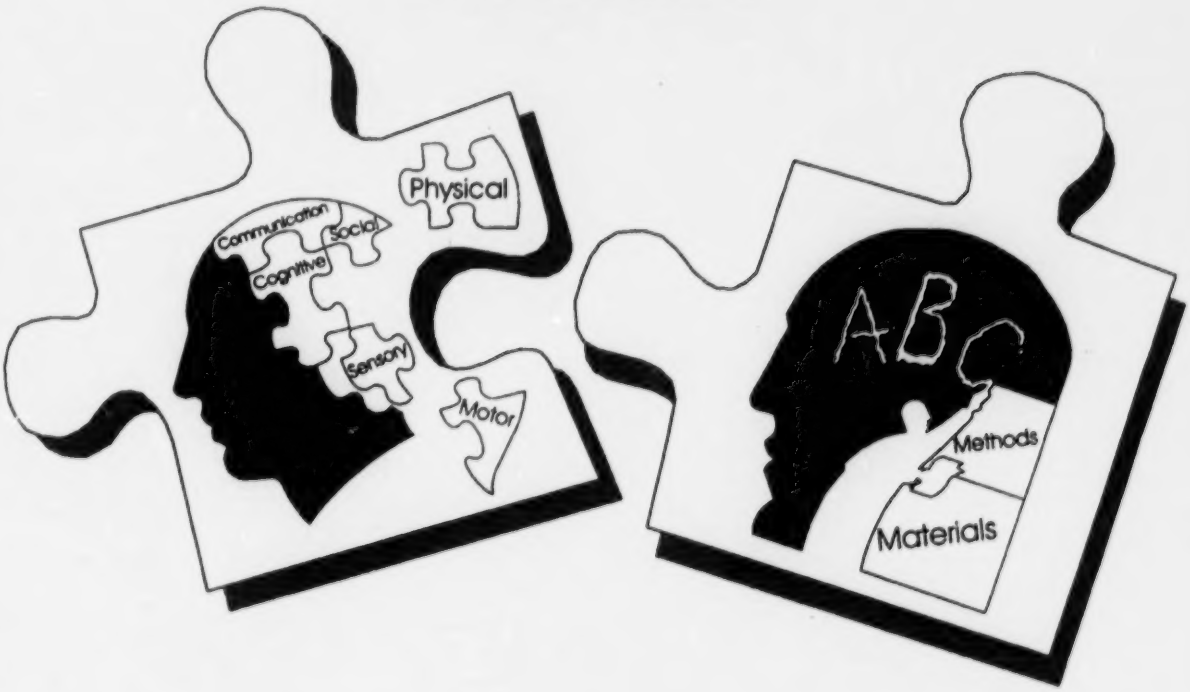

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SPECIAL NEEDS PROGRAM REVIEW PROFILE

PURPOSE, TARGET POPULATION AND USERS

1. The primary purpose of the *Special Needs Program Review Profile* is to provide a comprehensive list of *best practices* associated with provision of effective and efficient programs for learners having a variety of disabilities: social/behavioral, sensory, physical, cognitive and/or communication.

2. Because of the heterogeneous nature of the population of learners served by the Profile, all parts of the Profile will not be relevant to any one student. Users of the Profile may select parts of the Profile that are relevant to the needs of particular learners.

3. The ultimate purpose of the Profile is the design and implementation of effective, efficient, *least intrusive*, chronologically age-appropriate, gender and culturally appropriate, positive, normative and non-*stigmatizing* programs that best address the needs of individual learners. The Profile provides a guide for the development of *Individual Educational/Program Plans (IEPs and IPPs).*

4. The detailed Glossary at the end of the Profile provides definitions, explanations, examples and instructional suggestions for each of the Profile terms/concepts printed in italics. The Glossary may help users of the Profile share a common understanding of terms such as *authentic tasks*, IPPs and *transition planning*. The instructional suggestions provided in the Glossary may provide useful ideas to teachers.

5. The *Profile* is not an objective, standardized evaluation instrument and should not be used as such. Use of the Profile involves knowledge and understanding of a) the variety of needs of the learner(s) being served, b) the nature, purpose and effectiveness of the instructional methods and materials being used, and c) the suitability of the methods and materials to the individual needs of the learner(s). Considerable skill is required to make these judgements. Two people using the instrument may not agree on the *appropriateness* of the methods and material employed with particular learners(s). Failure to reach consensus opens the opportunity for dialogue, analysis of the standards being used to judge appropriateness, review of the rationale for using/not using various methods and materials in particular ways, and ultimately increased understanding and development of ways to improve programs for students having special needs.

6. The Profile serves as a guide and checklist for parents, teachers, consultants, administrators and Central Office personnel designing, delivering and/or reviewing comprehensive remedial, educational, or treatment programs to learners having special needs. Users are referred to the Glossary at the end of the Profile.

PROGRAM REVIEW HISTORY

Compete the following information each time the Profile is used to review a special needs program.

First Review

Learner's Name: _____ Birth Date: _____ Age: _____

Diagnostic Category/Classification: _____

Educational/Treatment Facility: _____

Placement within Facility: Program: _____ Classroom: _____

Grade: _____

Educational/treatment personnel (e.g., teacher, assistants): _____

_____

Reviewer: _____ Position: (e.g., parent, teacher, consultant [type],

administrator [specify]: _____

Reviewer's institutional affiliation: (e.g., School District; Consulting Office, etc.): _____

Consultant's Contact Numbers: phone: _____ fax: _____

e-mail: _____ Address: _____

Date/period of review: _____

Second Review

Learner's Name: _____ Birth Date: _____ Age: _____

Diagnostic Category/Classification: _____

Educational/Treatment Facility: _____

Placement within Facility: Program: _____ Classroom: _____

Grade: _____

Educational/treatment personnel (e.g., teacher, assistants): _____

_____

Reviewer: _____ Position: (e.g., parent, teacher, consultant [type],

administrator [specify]: _____

Reviewer's institutional affiliation: (e.g., School District; Consulting Office, etc.): _____

Consultant's Contact Numbers: phone: _____ fax: _____

e-mail: _____ Address: _____

Date/period of review: _____

Third Review

Learner's Name: _____ Birth Date: _____ Age: _____

Diagnostic Category/Classification: _____

Educational/Treatment Facility: _____

Placement within Facility: Program: _____ Classroom: _____

Grade: _____

Educational/treatment personnel (e.g., teacher, assistants): _____

_____

Reviewer: _____ Position: (e.g., parent, teacher, consultant [type],

administrator [specify]: _____

Reviewer's institutional affiliation: (e.g., School District; Consulting Office, etc.): _____

Consultant's Contact Numbers: phone: _____ fax: _____

e-mail: _____ Address: _____

Date/period of review: _____

Fourth Review

Learner's Name: _____ Birth Date: _____ Age: _____

Diagnostic Category/Classification: _____

Educational/Treatment Facility: _____

Placement within Facility: Program: _____ Classroom: _____

Grade: _____

Educational/treatment personnel (e.g., teacher, assistants): _____

_____

Reviewer: _____ Position: (e.g., parent, teacher, consultant [type], administrator [specify]: _____

Reviewer's institutional affiliation: (e.g., School District; Consulting Office, etc.): _____

Consultant's Contact Numbers: phone: _____ fax:_____

e-mail: _____ Address:_____

Date/period of review: _____

SPECIAL NEEDS PROGRAM REVIEW PROFILE

David Baine, Version 3, October 2001

INSTRUCTIONS

Follow the steps described below to use the *Special Needs Program Review Profile* when planning or reviewing a special needs program for an individual or group of students.

1. First, review the information in the *General* column to the left in the table below. If the information described in the General column relates to the student(s) for whom a program is being developed or reviewed, move to the *Specific* column.

2. Reviewing and rating the items listed in the *Specific* column.

   a. If you do not have a clear understanding of the meaning of any of the terms/concepts printed in italics, refer to the definitions, explanations and suggestions listed in the Glossary.

   b. If you think the item or group of items is being adequately addressed in the student's program, put a ✔ in the corresponding rating space in either column 1, 2, 3 or 4 depending on whether this is the 1st, 2nd, 3rd, or 4th rating being made.

   c. If you are uncertain or need more information to make your rating, put a **?** in the rating space.

   d. If the particular item is not relevant to the student(s), put an ✗ in the rating space.

   e. If you do not think the item is being adequately addressed in the student's program, put an ✱ in the rating space.

3. Items receiving a **?** or ✱ rating should be reviewed with the teacher and/or other program providers to gather more information, seek clarification and/or suggest improvements in the student(s) program.

4. If you wish to make notes about any item(s), space is provided at the end of each section of the Profile.

PART 1: INSTRUCTIONAL METHODS

Note: all term/concepts printed in italics are defined, explained and exemplified in the Glossary.

Instructional Methods		***Review*** 1	2	3	4
General	***Specific*** **day/mo/yr**				
	Reviewer initials				
Methods of instruction have been adapted to accommodate the student(s) individual needs	*input/output modes* compensate for auditory, visual, physical, attentional, behavioral and/or *cognitive disabilities* *Examples*: assigned fewer problems				
	assigned work at lower grade level				
	concrete, manipulable materials are used in place of abstract concepts				
	opportunities are provided to feel and explore objects and materials related to instruction				
	Braille and embossed materials (e.g., raised line paper, diagrams and maps) are used				
	slides, overheads, diagrams and other visuals are used to supplement oral instruction				
	alternative assignments (e.g., goes to speech therapy rather than participate in creative writing)				
	substitute materials (e.g., *high interest, low vocabulary reading*)				
	lighting and seating are arranged to maximize opportunity to see teacher, board, demonstrations and manipulables				
	technology incorporated: e.g., text-talk converters; *speech synthesizers*				
	student is assigned a *study buddy, peer tutor,* tutor, teaching assistant, or interpreter				
Instructional methods have been selected in consultation with *Individual Program Planning* team members	parents/guardians and as required: social worker; OT; PT; speech/language therapist; psychologist; doctor; nurse; dietitian ...				

Instructional methods are	consistent with those used with regular education students				
	least intrusive				
	most *effective*				
	efficient				
	positive/ non-aversive				
	chronologically age-appropriate				
	gender appropriate				
	culturally appropriate				
	unstigmatizing				
Instructional methods employ an errorless approach to teaching	*warm-ups* are used: prerequisite knowledge and skills are returned to *fluency* levels before students are required to use them in learning new knowledge and skills				
	student *attention* is obtained and focussed before instruction begins				
	correct responses are *prompted* through *modelling, stimulus cuing* and/or *physical prompting*				
	assistance is progressively and systematically *faded from use*				
	there is systematic *review/drill/practice* and *maintenance* and *generalization* of previously learned skills				
	appropriate *reinforcement* and *correction* procedures are effectively used to teach students the exact nature of desired responses				
	assessment is incorporated into each *step* of teaching so that the teacher can modify tasks and teaching to enhance learning and decrease behavior problems				
Instructional requirements	student has the prerequisite knowledge and skills to perform the tasks assigned				
	tasks provide a reasonable level of challenge: new tasks have a 75-85% success rate; independent practice activities have a 90-100% success rate				

	during instruction, new tasks comprise about 25%; the remaining 75% involves review of past learning and maintenance and generalization of previously instructed knowledge and skills; during independent work, new tasks comprise about 10% of assignments				
Instructional sequences	*steps* of instruction have been task analysed into a sequence of *essential steps or skills*				
	the *step-size* between successive task is appropriate to student, neither too large and difficult, nor too small and easy				
Instructional assignments	Directions: clear and concise directions are given; the assignment is given in sequential steps				
	students are asked to verbalize understanding of each part of the task/assignment before beginning				
	written or pictorial directions are given to supplement verbal instructions				
	a *study buddy* is assigned to check understanding of directions; read important directions; organize materials required				
	checklists are given to students to guide completion of assignments; checklist may be pictorial for students having limited reading skills				
	time limits are set for task completion; suggestions are made for the time required to complete each part of the task; due date is printed on the front of the assignment				
	frequent checks are made of the student's initial work on assigned seat work to determine if the right text, worksheets and materials are being used in the correct manner				
	frequent checks are made of the student's progress on assigned seat work to avoid or minimize practice making errors when assignments are done incorrectly				
	Assignment materials: textbooks have a suitable level of readability for the student's reading decoding and comprehension skills				

	worksheets are uncrowded and well organized; separate parts of the assignment set off in separate blocks; long worksheets are cut into sections; key words are highlighted				
Instructional management involves	*descriptive praise* (explicit description of appropriate performance) is given to the student closely following correct performance				
	descriptive corrective procedures (explicitly describe what is expected) is given to the student closely following error performance				
	the teacher provides immediate and constructive responses to behavioral and instructional disruptions (see Behavior Management Methods Section)				
Motivation	instructional materials are selected on the basis of student interests and experiences				
	a variety of individually suitable reinforcers are available to avoid *satiation* and to maintain a high rate of appropriate performance				
	variations in *pace of instruction*, instructional materials, types of responses required and style of instruction is used to provide variety and maintain interest and attention				
	feedback and *corrective* procedures are positive/encouraging and motivate the student to try again				
	the purpose and usefulness of each task is made apparent to the student at the beginning of instruction				
Instructional delivery	the style of instruction gains and hold student attention				
	concrete examples and manipulables are used to prepare students for abstract concepts that are to be presented later				
	examples given relate to student experiences				
	a teacher *model* (teacher demonstrates correct response), teacher *prompt* (teacher assists student to make correct response) and *teacher test* (teacher assesses student ability to perform the modelled behavior) is used to insure the student has learned each segment of instruction before proceeding to the next				

	the teacher uses *modeling* and demonstration of suitable length, speed and complexity for the student's ability to observe and imitate critical features				
	Pace of instruction: is varied: slower during initial task learning more rapid during *fluency training*				
	pace is adjusted to student's abilities to avoid inattention and frustration				
	pace of instruction is appropriate: slow enough to permit orientation and preparation of appropriate responses and fast enough to maintain attention and avoid boredom				
	Instructional delivery employs various formats, as appropriate, for example: 1:1 instruction				
	small group instruction (2-4 students)				
	large group instruction (5+ students)				
	peer tutoring				
	study buddy				
	aide (teacher assistant) tutoring				
	volunteer tutoring				
	itinerant specialist				
	cooperative learning groups				
	learning centres				
	independent assigned work				
	instructional delivery is designed to teach the student to perform independently: teacher, aide and tutor assistance is provided only when and as necessary; assistance is *faded* from use as rapidly as possible while maintaining the desired student responses				
Instructional materials	materials are appropriate to student's interests, gender, culture, experiences and abilities				
	materials required for instruction are readily accessible during instruction and rapidly distributed avoiding time loss, inattention and behavior problems while looking for materials				

Instructional scheduling	the length of instructional sessions is appropriate to student's ability to attend (e.g., *attention deficit*) and perform (e.g., instruction terminates before fatigue, boredom, behavior problems and errors increase)				
	the instructional schedule varies the nature of tasks to provide variety and motivation and to avoid undue fatigue and boredom (e.g., there are not too many successive tasks of the same type)				
	intensive work periods are punctuated with breaks or alternative activity to permit recovery, maintain interest and effort, and avoid fatigue and behavior problems				
	physically active and quiet activities, and demanding cognitive and sensory activities are alternated to avoid mental and sensory fatigue, stress and inattention				
	difficult or demanding tasks are not scheduled in succession or following physically active periods when it is difficult to settle down or following lunch when students are likely to be tired and inattentive				
	highly attractive activities that are difficult to terminate are scheduled prior to natural breaks such as recess and lunch or a special movie				
	to enhance motivation, high interest tasks are scheduled following low interest tasks				
	there is a minimum of busy work and *transition time*				
	to promote *maintenance* of new learning, newly instructed knowledge and skills, e.g., learning the alphabet, are briefly reviewed 30 min., and 1, 3 and 5 hours following initial instruction				
	warnings are given in advance of the termination of one task and the transition to another activity				
	transitions are short and well organized				
	consistent, predictable schedules of activities are followed; consistent routines are more predictable and manageable for both teachers and students. Unexpected changes may be disruptive, confusing and lead to behavioral difficulties.				

Instructional Methods Review Notes
First Review
Second Review
Third Review
Fourth Review

PART 2: BEHAVIOR MANAGEMENT METHODS

Behavior Management Methods		***Review*** 1	2	3	4
General	***Specific*** day/mo/yr				
	Reviewer's initials				
Methods of *behavior management*	are consistent with those used with regular education students				
Systematic methods are employed for	collecting, plotting and interpreting behavioral data for the purpose of selecting and revising instructional and behavioral methods				
Management methods are selected on the basis of	*functional analyses* to determine the function of *inappropriate behaviors* and to teach *functionally equivalent* appropriate behaviors				
Educative methods of behavior management are	actively designed to teach appropriate functional behavior to replace inappropriate behavior				
Behavioral methods employed are:	*least intrusive*				
	most *effective*				
	efficient				
	chronologically age-appropriate				
	proactive				
	positive/ non-*aversive*				
	gender appropriate				
	culturally appropriate				
	unstigmatizing				
	normative				
	adapted to individual disabilities				
	behavioral methods used are consistent with school, district and state/provincial regulations and policies as well as ethical guidelines and standards				

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	behavioral methods are implemented by appropriately trained and supervised personnel				
The behavior management method used are primarily non-aversive, proactive and based on:	*environmental restructuring* as required				
	curricular, instructional and materials *adaptation* as required				
	task analysis to improve effectiveness of instruction and curricula				
	teaching of *prerequisite* and *compensatory skills* as required				
	supplementary curricula and instruction to provide additional practice and assistance and to improve performance				
If and when *aversive methods* of behavior management are employed, they:	comply with state/provincial, school and district policies, procedural guidelines and regulations				
	are proposed only when <u>all</u> methods of positive management have been determined as ineffective for the particular student and problem behaviors exhibited				
	are based on sound research evidence describing potential advantages of the techniques with the types of individuals and the behaviors involved				
	are based on a detailed description of *side-effects,* risks and methods to diminish or avoid these				
	are based on data collected on the student involved and variations of his/her behavior under various conditions				
	are *effective, efficient, least intrusive* and protective of individual rights and freedoms				
	employ appropriate methods of supervision, data collection, recording and interpretation				
	have short- and long-term time lines for training/treatment implementation and review				

	use well defined decision-making procedures to determine if the management methods should be reviewed, revised or discontinued				
	parents, guardians, and where possible the student involved, have given signed, informed consent. They understand that they may withdraw from the program at will without penalty.				
	are approved, reviewed, and monitored by a *Human Rights Committee*				
	are implemented and supervised only by staff trained in use of the specific methods employed				
Behavior management methods have been selected in consultation with *Individual Program Planning* members	parents/guardians and as required: social worker; *OT*; *PT*; speech therapist; psychologist; doctor/nurse; behavioral consultant				
Appropriate rules and consequence have been clearly communicated to students and describe expectation with respect to	requesting assistance				
	asking questions, call-outs, talking with peers				
	what to do when work is done				
	how to work in groups				
	how to distribute materials; put away supplies and equipment; clean up				
	out-of-seat policies				
	using the water fountain, bathroom and pencil sharpener				
	homework				
	unfinished work				
	using learning centres and equipment e.g., computer				
	marking and grading				
	rewards and incentives				
Staff responses to behavior problems are based on a well-established *hierarchic model of intervention* alternatives such as:	ignoring attention-getting behavior				
	reminding a student of the rules through the use of eye contact, gestures, facial expressions, increased proximity and/or a gentle touch on the student's shoulder				

	rewarding other students for performing "the right way" and using them as models for "the right way to behave"				
	distract, redirect, interrupt				
	private and positive review of rules and warning of consequences; giving the student choices				
	minimum verbal cueing (e.g., "Ted." "What should we be doing?"				
	using a designated cooling off period/area				
	assigning writing: essays, lines, spelling or vocabulary				
	interviewing the student after school or during recess and using signed performance contracts				
	instruction in appropriate practices: pro-social behavior; conflict resolution				
	meeting with parents and the student; signing an agreement/contract describing behavioral rules/expectations and consequences for violations				
	counselling or referring for special services				
	time-out (exclusionary or observational)				
	detention: 1st. 2nd. or 3rd. (recess, noon hour or after school)				
	restitution: payment for property damage; community service (sweep walks, snow removal, wash floors)				
	suspension: in or out of school				
	transfer to a different classroom or school				
	notification of police and arrest where criminal violations have taken place				
	expulsion from school or all district schools				

Behavior Management Review Notes
First Review
Second Review
Third Review
Fourth Review

PART 3: ASSESSMENT METHODS

Assessment Methods		***Review*** 1	2	3	4
General	***Specific*** **day/mo/year**				
	Reviewer's initials				
Valid and *reliable* tests have been used to assess:	self-help				
	life skills (domestic and family)				
	auditory (hearing and auditory processing skills)				
	visual (vision and visual processing skills)				
	communication				
	motor skills (gross and fine)				
	intellectual/cognitive				
	personal and social skills/behaviors				
	mathematics				
	reading				
	writing/spelling				
	development				
	career development/prevocational and vocational skills				
	leisure and recreational skills				
	tests of achievement are content valid: they test the knowledge and skills taught in the student's program, in the same manner as they were taught in the classroom				
Test *norms*	test *norms* are *recent* and *relevant* to the student being tested				
	tests have been *normed* on students having the same types of disabilities as the student(s) being tested				
Data collected on instructional and behavioral progress	is efficient and does not interfere with student instruction and behavior management				

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	is actually used to make important decisions about student instruction and behavior management				
Initial referral, placement and program planning assessments have been conducted as required by	*OT*; *PT*; speech therapist; audiologist; medical personnel; psychologist; educator and others				
Interim, periodic formative assessments to evaluate all aspects of the student's program have been scheduled within reasonable periods of time and have been appropriately assigned to and conducted by	*OT*; *PT*; speech therapist; audiologist; medical personnel; psychologist; educator and others				
Follow-up, summative and final assessments have been scheduled and persons responsible have been assigned	*OT*; *PT*; speech therapist; audiologist; medical personnel; psychologist; educator and others				
Assessment is integrated with teaching:	to identify and reinforce successes, and to identify and correct errors as soon as possible				
	to permit rapid and effective adaptation and individualization of instruction and behavior management methods				
	to assess skill a) *acquisition*, b) *maintenance* and c) *generalization*				
Test accommodations and administration	all testing *accommodations* made comply with test publisher specified accommodations and do not jeopardize *standardized test administration* and invalidation of test *norms*				
	non-standardized tests are used for which norms and comparative data are not available; information regarding the validity and reliability of the test is not available; may be a teacher-made test				
	Instructions and questions: instructions and questions are presented by sign language, large print or Braille; a signing interpreter may be used to present or explain instructions				
	test instructions and examples are simplified, reread and/or clarified, as required				
	important words in instructions or questions may be visually highlighted or verbally explained				
	test items may be read to the student				

	Test administration: tests are administered by suitably trained personnel				
	test is administered in a quiet area away from distractions; with special lighting, furniture and/or study carrels as required				
	group tests are administered individually				
	Time limits: extended time is allowed to complete test				
	the test may be divided into sections having rest periods between				
	test scheduling is coordinated with other events that may be tiring or distracting				
	Test content: printed material is replaced by or supplemented with suitable pictures				
	selected content (e.g., parts of test have been eliminated or substituted, as required)				
	test content relates to student interests, experiences, age, gender, culture				
	increased spacing is used on test to reduce visual difficulties				
	Test equipment: student may use special equipment such as dictionary, thesaurus, bilingual dictionary or word processor on a writing test				
	student may use calculator or arithmetic tables on mathematics test				
	Student responses to test: uses a scribe to record responses				
	uses sign language				
	rather than writing, gives yes or no response; nods or shakes head in reply to questions; points to pictures				

	uses word processor; spell checker				
	uses a Kensington Trackball mouse				
	uses a HeadMaster Plus Mouse				
	uses Intellikeys Keyboard				
	uses ZOOMTEXT				
	uses text-talk converters				
	uses speech synthesizers				
	uses large print answer sheets				
	uses signed responses, communication boards or electronic communication devices in place of verbal responses				
	uses an interpreter to assist student responses				
	uses a scribe to write dictated student responses				

Assessment Methods Review Notes
First Review
Second Review
Third Review
Fourth Review

PART 4: CURRICULUM AND INDIVIDUAL PROGRAM PLAN

Curriculum and Individual Program/Education Plan (IPP/IEP)		***Review*** 1	2	3	4
General	***Specific*** **day/mo/yr**				
	Reviewer's initials				
The 5 curriculum levels numbered below describe *IPP/IEP* programs that are successively more individualized and that deviate increasing from regular education programs. Respond to the questions at the program level that best describes the curriculum/program used with the student(s) being reviewed. Note: "age/grade" level refers to the expected regular education grade placement for a student's chronological age.					
1. Subject area teaching is consistent in content with State or Provincial Curriculum or Program of Studies for regular education and most courses are taught at *age/grade level*; however, one or more courses is taught at a level higher or lower than the student's *age/grade level*	**In one of the columns to the right put a √ to indicate each subject being adequately taught at grade level. Record the grade level for any subject not at grade level. If you are uncertain about a program's adequacy, record a ?. If you feel instruction is inadequate, record a ✱. Also check with Curriculum Level 5 listed below.**				
	mathematics				
	language arts (reading, writing and/or spelling programs)				
	science				
	social studies, history				
2. Subject area teaching is consistent in content with State or Provincial Curriculum or Program of Studies for regular education, but most courses are not taught at the student's age/grade level; most courses are taught at *a level lower or higher than* the student's age/grade levels	**In one of the columns to the right put a √ to indicate each subject being adequately taught at grade level. Record the grade level for any subject not taught at age/grade level. If you are uncertain about a program's adequacy, record a ?; If you feel instruction is inadequate, record a ✱. Also check with Curriculum Level 5 listed below.**				
	mathematics				
	language arts (reading, writing and/or spelling programs)				
	science				
	social studies, history				

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3. Most *subject Area teaching* is consistent in content with State or Provincial Curriculum or Program of Studies for regular education, but is not taught at age/grade level, and the content of some courses has been *individualized* and is not consistent in content with State or Provincial Curriculum or Program of Studies for regular education	**In one of the columns to the right put a √ to indicate each subject in which the course is being adequately taught and the content is consistent with the State or Provincial Curriculum or Program of Studies, but not at age/grade level. Put an I for any subject in which the content is individualized and is not consistent with State/Province Curriculum. Also check with Curriculum Level 5 listed below.**				
	mathematics				
	language arts (reading, writing and/or spelling programs)				
	science				
	social studies, history				
4. All subject Area Learning is individualized: IPP content deviates from the State or Provincial Curriculum or Program of Studies	**In one of the columns to the right put a √ if this description best fits the nature of the program the student(s) is receiving and the student is being adequately taught. Use the ? and ✱ ratings as appropriate. Also check with Curriculum Level 5 listed below.**				
5. In addition to, or in place of subject area instruction, the student(s) are receiving instruction in the following areas	**In one of the columns to the right, put a √ indicating an area in which the student is receiving instruction**				
	Domestic and Family, e.g., prepare simple recipes, vacuum, independently make a simple sandwich or bed				
	Personal and Social, e.g., dress appropriately for activity/weather; use toilet; brush teeth; attend to person calling his/her name; appropriately greets strangers and familiar people				
	Leisure and Recreational, e.g., spectator or participant in games/sports; cooperate or compete in individual or team sports/games; play cards or checkers; draw simple pictures of faces, houses or cars; play computer games with large display, controlled by large muscle movement; use gross motor responses to activate switches on tape recorder, game or toys				
	Citizenship and Community, e.g., travel independently in community; cross street independently; use community facilities (recreational, cultural, sports, medical, retail); select and order 1 or 2 food items at a fast-food store				

	Career Development, e.g., does chores around home/school (mow grass; clean up trash; clean walks of snow; grocery shop for elderly neighbours); complete an off-campus work experience				
	Functional Academics: (reading and mathematics), e.g., - obey "Walk, Stop, Men and Women" signs - match coins required to make a purchase				
	Foundation Skills: Social Skills: *orienting* and *attending*				
	Gross and Fine Motor Skills: head up; sitting; crawling; rolling over; grasp and release; using a pencil; pouring milk				
	Basic Communication motor and sound imitation point to 3 or 4 pictures on a communication board				
	Self-Help using a spoon; brushing teeth; bathing; dressing/undressing				
	Cognitive object/picture discriminating; labelling; matching				
Curriculum includes *transitional planning* for future demands the student will likely face:	transition from family to group home or to apartment living				
	transition from protected to independent living				
	transition from preschool to elementary				
	transition from elementary to junior high				
	transition from junior to senior high				
	transitions from senior high to vocational placement				
	transitions in vocational placements				
	transitions in recreational locations or activities				

	transitions from segregated to integrated program or vice versa				
Student's program includes instruction in:	**In one of the columns to the right, indicate the percentage of the student(s) total program involving participation in the following areas.** Refer to State/Provincial curricula for a review of the scope (content) and sequence in each area of the curriculum. **Also, as above, use the ? and ✱ ratings as appropriate.**				
	arts/crafts				
	physical education				
	music				
	vocational education				
	life skills				
Individual Program Plan includes specialized training/ treatment relating to types of disability	***Training/treatment related to Visual Disability:*** **As above, use the ? and ✱ ratings as appropriate.** improves use of *residual vision*				
	Sense training: awareness, discrimination, recognition and comprehension of auditory, tactile, proprioceptive, kinesthetic, vestibular, olfactory and gustatory sensations				
	sense training is based on ecological analysis of important (functional) sources and types of sensory input in student's environments				
	adapted physical education				
	social/emotional training				
	alternative methods of reading and writing, e.g., Braille, computers ...				
	Orientation: body awareness: up, down; front, back; top, bottom landmark training: identifying familiar smells, tactile sensations, sounds ...				

	Mobility: trailing hands along walls to locate doors, hallways, fountains, school office				
	travelling with a cane				
	travelling through a crowded shopping centre				
	crossing marked and unmarked streets having signal lights, chirping signals, crowds of people				
	ascending/descending stairs				
	using automatic doors, revolving doors, turnstiles, fire doors				
	using elevators, escalators				
	travelling by public/private bus, taxi				
	appropriate/inappropriate social behavior: touching self/others; nose picking; genital stimulation				
	reducing blindisms: twirling; flapping hands in front of eyes; rocking; poking own eyes; unusual facial expressions				
	career and vocational skills				
	use and maintenance of specialized equipment e.g., *Slate and Stylus; Optacon* (print to vibration); Braille writer				
	Training/treatment related to Auditory Disability: improving use of *residual hearing*				
	specialized communication training: sign language; oral skills; *speech/lip reading*				
	adapted physical education				
	use and maintenance of specialized equipment, e.g., hearing aides				
	daily living skills				
	social/emotional training				
	career and vocational skills				

	Training/treatment related to Physical Disability: *daily living skills*				
	fine and gross motor training (holding pencils; using scissors; grasp and release; crawling; walking; standing; turning-over; hopping; skipping; jumping; running; throwing; catching; batting ...)				
	adapted physical education: individual and team sports: badminton; tennis; hockey; swimming; jogging				
	maintenance of specialized equipment, e.g., wheelchair and leg braces				
	locomotion: cane; walker; wheelchair (manual, powered); coping with curbs, ramps, stairs, doors, bathrooms, snow, ice, sand and crowds				
	methods of transfer between wheelchair, standing table, toilet, bed, desk ...				
	use of alternative and *augmentative communication*, e.g., *speech synthesizers; head pointers; communication boards*				
	use of enabling switches: leaf; joy stick; sip and puff				
	social/emotional training				
	career and vocational skills				
	Training/treatment related to Behavioral/Social Disability: social/personal skills training, e.g., anger management; conflict resolution				
	cognitive behavior modification (self-monitoring; self-evaluation; self-reinforcement)				
	learning cooperative skills; team work				
	behavior modification program: based on *ecological analysis*				

	takes an *educative* approach: teaches socially appropriate/adaptive behaviors required in environments in which student will function now and in future				
	decreases frequency, duration, and magnitude of inappropriate behaviors: stereotypic; agitated states; self-abuse; aggression; sleepy/drowsy state				
	based on *functional analysis*				
	replaces inappropriate behaviors with functionally equivalent, adaptive behaviors that serve the same function and that result in reinforcers of the same magnitude, frequency and rapidity				
	Functional skill training related to all types of disabilities including cognitive/intellectual: Self-help skills: eating; drinking				
	toiletting; bathing				
	personal hygiene: cleanliness (washing hands after toiletting; using a hanky); menstruation; brushing teeth				
	grooming: using deodorant; cosmetics; shaving; combing hair				
	dressing; undressing (inner and outwear); seasonal and special function clothing (skiing; swimming; wedding; funeral)				
	washing, drying, ironing and storing clothing				
	Household maintenance: vacuuming; dusting; tidying; removing trash				
	using a stove; fridge; dishwasher				
	using a clothes washer; drier				
	using an iron; toaster; coffee maker; microwave				
	using a telephone; door lock; burglar alarm; furnace; air conditioner				

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	yard work: mowing/raking grass; removing snow from walk; watering plants/grass; maintaining a garden				
	household safety: safe use and storage of cleansers, chemicals, medications; using a fire extinguisher, fire alarm, phoning for ambulance, fire, police				
	Community skills: safely riding tricycle; bicycle; skate board; in-line skates				
	crossing streets (marked or unmarked; little or much traffic; few or many people)				
	Using community facilities: theatre				
	doctor/dentist offices				
	hospital; medi-centre				
	shopping centre; grocery/convenience store				
	restaurant; café; fast food				
	recreation centre; bowling alley; swimming pool; playground; parks				
	public library				
	bank and banking machines				
	churches; synagogues; mosques				
	special events: funerals; weddings; parties				
	cultural and sports events (participant/ spectator)				
	Travelling: by car; taxi				
	by bus (public or private)				
	elevator; escalator				
	using doors: fire doors; revolving doors; turnstiles				
	Values training: honesty				

	personal property				
	privacy				
	respect for others				
	Social skills training: using appropriate greetings				
	lining up at movies, checkout counters, and fountains				
	taking turns				
	public and private behavior				
	working cooperatively				
	appropriate competitive behavior				
	relating to strangers				
	relating to authority: teacher; boss; police				
Individual Program Plan designed in consultation with Individual Program team members	parents/guardians and as required: social worker; *OT*; *PT*; speech therapist; psychologist; doctor/nurse				
Individual Program Plan has been designed on the basis of an *ecological inventory* of the student's:	current *functional* task demands in the following environments: residential/domestic; community; school; vocational; recreational				
	future *functional* task demands in the following environments: residential/domestic; community; school; vocational; recreational				
Curriculum and Individual Program Plan is:	*least intrusive*				
	most effective				
	efficient				
	functional				
	positive/ non-aversive				
	chronologically age-appropriate				
	gender appropriate				
	unstigmatizing				
	normative				
	culturally appropriate				

Individual Program Plan is individualized in terms of:	*Instructional materials:* stimulus mode (e.g, interpreter; pictorial or braille rather than print input)				
	response mode: (e.g., sign language, computer or communication board rather than written output)				
	rate: scheduling or duration of instruction				
	specialized equipment or *prosthetic adaptations*				
	curriculum: (e.g., different grade levels, *adapted* or *alternative*)				
	instructional assistance (e.g., interpreter, assigned aide, study buddy)				

Curriculum and Individual Program Plan Review Notes
First Review
Second Review
Third Review
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PART 5: ADAPTIVE EQUIPMENT AND ENVIRONMENTAL MODIFICATION

Adaptive Equipment and Environmental Modification		***Review*** 1	2	3	4
General	***Specific*** day/mo/yr Reviewer's initials				
Adaptive equipment and environmental adaptations for PHYSICAL and COMMUNICATION DISORDERS	assistive devices for eating e.g., adapted knives; forks; spoons; plates; glasses and cups, and feeding machines				
	velcro shoe ties and clothing zippers				
	adapted toilets: *commodes*; railings; grab bars; safety straps; harnesses and arm rests (see Accessibility below)				
	wheelchairs (electric; self-propelled; assisted; 1 or 2 wheel manual drive)				
	walkers				
	back braces and body jackets				
	bolsters; wedges and bean bags				
	hand splints				
	walking aids: *quad canes*; crutches; adjustable aluminium walkers				
	specialized chairs e.g., *Prone Standers; Stand-In Table*				
	Computer adaptations: Input/output modifications: head pointers (head mounted sticks used to point to objects, press switches and select keys on a keyboard)				
	light pointers (head mounted beam of light directed to objects, communication board symbols and specially designed keyboards)				
	mouth sticks (stick held in mouth has a writing tip, page-turner tip, grabbing device tip or a pointer for selection of keyboard keys)				

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	computer mouse has been replaced by a trackball; roller ball; track-pad or joy stick				
	TouchWindows (on-screen keyboard, activated by finger, pen, palm or stylus)				
	Unicorn Keyboard (larger than a standard keyboard; 128 touch sensitive keys can be reconfigured to accommodate 2, 3, 4 or more large or small pictures)				
	speech recognition programs replace keyboard (recognizes user's voice)				
	word prediction software (requires user to type only part of words - remainder is predicted)				
	Keyguard (plexiglass cover with holes for individual keys to avoid pressing multiple keys)				
	Adjustments made to amount of pressure or time acquired to activate a key and avoid unwanted multiple activations with one key stroke				
	talking word processor (reads what is being typed)				
	Talking Screen (when symbols or pictures on a computer screen are selected, in various ways, the item is converted to speech)				
	Augmentative communication devices: Low technology communication devices: tangible symbols (actual objects or miniature objects) used for communication				
	pictures (black/white; color; magazine; computer or Polaroid pictures) used for communication				
	photo boards (rows and columns of pictures mounted on boards; specific picture sets may relate to particular activities, e.g., vocational)				

	schedule or calendar boxes (rows and columns of small boxes in each of which a symbol, picture, object or part of an object has been placed to represent a sequence of events)				
	communication books (photo albums or 3 ring binders with different categories of pictures or symbols on each page)				
	communication vests (velcro backed symbols fixed on vest - can be pointed to for communication)				
	communication charts (have specialized vocabulary related to particular activities, e.g., cooking chart, placed in kitchen)				
	communication cards (laminated symbols or pictures mounted on a key ring for easy selection)				
	communication wallets (photo holders in which pictures or symbols are mounted in categories)				
	conversation displays (small, portable albums on which photographs of rock stars or pet dog, magazine pictures, hockey cards or political buttons depict topics of interest to user to stimulate discussion with others)				
	E-TRAN (Eye TRANsfer frames) (clear plastic frame on which pictures and symbols have been mounted - user looks at picture; communication partner can see through frame to observe particular symbol or picture user is looking at)				
	Medium technology communication devices: pointer boards (displays of pictures, symbols or words to which a switch operated pointer moves to point to one item at a time; start/stop switch stops pointer on selected item)				
	switch activated voice recordings (switch operated cassette recorder plays message e.g., "Please show me the bus to take to Broadway and Main")				

	High technology communication devices: clock scanning communicators: e.g., Comboard; Dial Scan (clock hand is switch operated to scan symbols and pictures arranged in clock face configuration)				
	electronic, scanning, communication devices, e.g., Zygo Model 16C; ScanPAC (pictures and symbols in rows are scanned row by row, then item by item in a row)				
	electronic, keyboard operated, Communication devices, e.g., Canon Communicator, Real Voice, Talker 11, convert input to speech				
	speech synthesizers (electronic voice output communication devices, e.g., MessageMate; Talking Screen; Alpha Talker)				
	environmental control devices: remote answering of telephones; adjusting temperature; turning on lights; answering and opening of doors; turning on appliances				
	Accessibility: walkways and hallways: >36" wide				
	entrances and doorways >32" wide				
	cafeteria; gymnasium; assembly hall access				
	electronic doors				
	ramps < 1' rise in 12'				
	washroom stalls: >60" wide and deep; toilet seats 17-19" from floor				
	sinks < 34" from floor with 29" clearance beneath				
	mirrors, shelves, towel dispensers <40" from the floor				
	private changing, treatment and toiletting areas as required				
Adaptive equipment and environmental modifications for AUDITORY DISORDERS	**Hearing aids** to enhance classroom communication: *fm wireless* systems				

	infrared systems				
	induction systems				
	teletypewriter and printer *TTY*				
	visual fire alarms				
Adaptive equipment and environmental modifications for VISUAL DISORDERS	*large-type books*				
	talking books: prerecorded academic and leisure materials				
	raised-line paper				
	slate and stylus				
	Perkins Brailler				
	magnifying glasses				
	Viewscan (portable electronic magnifying system)				
	Kurzweil Reading Machine (converts print to speech)				
	Optacon (converts print to vibrating letter image)				
	vibrotactile communication devices, e.g., Tactaid 2000; LTD (Little Tactile Device); OSCAR (Optimal Speech Communication Assistance for Residual Hearing)				
	Navigator (computer turns text into braille)				
	CCTV (Closed Circuit Television: presents enlarged video image of printed material)				
	long cane				
	talking calculator				
	Mowat Electronic Sensor: a hand-held device used to detect objects at waist level and above				
	Pathsounder: a device worn on one's chest; used to detect objects in front of the wearer				
	variable speed, tape recorders				
	tactile sensors on floor and walls to warn of signal obstructions or dangers				

	braille elevator pads				
Adaptive equipment and environmental modifications for BEHAVIOR DISORDERS	*door knob covers* to prevent unauthorized wandering				
	perimeter alarms to signal wandering				
	time-out room				
	quiet cooling-off area				
	study carrel				
	data collection devices (counters)				
	auditory timers to cue data observation, collection, self-monitoring, completion of work intervals or deadlines				
Adaptive equipment and environmental modifications for BIOPHYSICAL/MEDICAL DISORDERS	*suctioning equipment*				
	catheters for *tube feeding* and removal of body wastes				
	oxygen supply, *catheters* and masks for administration of oxygen				
	as required, equipment for sterilization and sanitation (surgical gloves; antiseptic washes)				
	as required, special, waste disposal equipment and procedures				
	private areas for physical management and treatment				
	locked cabinets for medications and medical equipment				
	special containers *indicating dosage and timing of administration*				
	record keeping indicates who administered a specified dosage at particular times to specific children				
	appropriate furnishings and equipment e.g., *transfer cranes; gurneys;* treatment tables				
	emergency equipment for: fire evacuation				
	cardio-pulmonary distress				
	diabetic coma				

	allergic responses e.g., *anaphylactic shock*				

Adaptive Equipment and Environmental Modification Review Notes
First Review
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PART 6: MEDICAL-PHYSICAL NEEDS

Medical-Physical Needs		***Review*** 1	2	3	4
General	***Specific*** day/mo/yr **Reviewer's initials**				
Student Records include information relating to:	parents, guardians, after-school care contacts; close, extended family members				
	doctors (family, specialist)				
	other treatment specialists (*OT*; *PT*)				
	emergency contacts: doctors; parents; family members; involved extended family; after-school care				
	approved/prohibited procedures in case of emergency				
	medications: type, dosage and frequency; weekly monitoring of changes in medications and dosages				
	health condition (e.g., allergies; seizures; digestive; eliminative; drug reactions; sensory; heart and lungs)				
	limitations of activities				
	crisis avoidance: symptom monitoring; possible *side-effects* of food and activity; precautions; emergency procedures				
	ongoing communication with parents/guardians (e.g., exchange of daily communication book)				
	recently signed permission forms for medical and behavior management; information release; activity participation; photographs/video				
Specialized procedures	instructions on when/how and who should/should not administer specific procedures				

	Staff have required training for administration of required procedures: a) Administration of oxygen: through a *nasal cannula*				
	with a *nasal mask*				
	through a *tracheostomy*				
	b) Tube feeding using a *nasogastric tube*				
	using a gastrostomy tube				
	intravenous feeding				
	c) Performing catheterization and using a *colostomy bag* to remove waste from the bowel and bladder				
	d) Administering medications: oral				
	rectal				
	injections				
	inhalations				
	eye/ear drops				
	e) Pumping or monitoring of *peritoneal shunt*				
	f) Basic first aid				

Medical-Physical Needs Review Notes
First Review
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PART 7: STAFFING AND SUPPORT SERVICES

Staffing and Support Services		***Review*** 1	2	3	4
General	***Specific*** day/mo/yr				
	Reviewer's initials				
Adequate support services are available for:	**Indicate the number of hours per week each of the following services is available on site**				
	medical/health management and emergency care				
	social-personal needs: e.g., counselling; guidance				
	communication: use of *residual hearing*; use of *augmentative communication* equipment; sign language; speech/language therapy; interpreter for hearing impaired; consultation to teaching staff; preparation of specialized materials				
	vision skills: use of *residual visual; orientation and mobility training;* use of specialized equipment; transcriber/recorder for Braille				
	occupational therapy				
	physical therapy				
	adaptive physical education				
	music therapy				
	interpreter for hearing impaired				
	social work				
	transcriber for Braille				
	behavior management support				
Classroom staff	are sufficient in number to manage and instruct the students and provide adequate supervision for:				
	group classroom activities				
	individual classroom activities				
	playground				
	lunch room				
	hallways				

	toilets				
	treatment areas				
	time-out and quiet time areas				
	assemblies				
	library time				
	school arrival and departure times				
	field trips				
	if emergency draws one or more staff away				
	if emergency (e.g., fire) requires evacuation				
	Personnel are adequately trained to: manage behavior problems				
	manage medical emergencies and health maintenance procedures for which they are responsible				
	teach students with the types of disabilities for which they are responsible				
	use the specialized equipment for which they are responsible				
	use the instructional programs and materials for which they are responsible				
Responsibilities and liabilities	Staff are fully familiar with legal, policy and professional considerations related to limitations, responsibilities and liabilities concerned with all physical/medical procedures and equipment used/ administered in the program				

Staffing and Support Services Review Notes
First Review
Second Review
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PART 8: PLACEMENT

Placement		***Review*** 1	2	3	4
General	***Specific*** **day/mo/yr**				
	Reviewer's initials				
Segregated Placement	fully segregated school				
	fully segregated classroom				
Integrated Placement	part-time integration				
	full-time integration				
	Integrated activities: **for each activity and subject below, indicate the number of integrated hours/week** playground				
	lunchroom				
	assemblies				
	music				
	arts and crafts				
	physical education				
	Integrated subjects: math				
	science				
	social studies/history				
	language arts				
	vocational				
Types of integrated placement	proximal: students with disabilities are simply placed in same location as regular education students, e.g., classroom, school bus, assemblies and lunch. There may be little if any interaction.				

	helping: regular education students assist students having disabilities in academic subject areas, life skills and classroom routines; may involve *peer tutoring* or *study buddy*				
	reciprocal: students with disabilities and regular education students participate equally in activities such as cooperative learning groups; there is no role differentiation				
	classroom (integrated/isolation): student with disabilities is placed in a regular education classroom; program is separate from that of peers; student is instructed primarily by a teaching assistant				
	classroom (parallel): student with disabilities is placed in a regular education classroom; program is parallel to that of peers; instructed by teacher and teaching assistant				
	classroom (*full integration*): student is placed in a regular classroom and generally participates like all other students; may or not be assisted by a teaching assistant who may also assist other students				
	progressive integration: increasingly more time and subjects or activities are integrated				
Percentage of time integrated in regular education classroom	<25%				
	26-50%				
	51-75%				
	76-100%				

Placement Review Notes
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PART 9: COMMUNICATION

Communication		***Review*** 1	2	3	4
General	***Specific*** day/mo/yr Reviewer's initials				
Communication methods used with students having HEARING IMPAIRMENTS	*SEE: Signed Exact English*				
	Ameslan: American Sign Language; has its own vocabulary, grammar and word order				
	Speech Reading: lip reading, and interpreting facial expression, body language and gestures				
	Cued Speech: oral communication; uses 8 signs and hand positions to assist lip reading				
	Rochester Method: oral communication plus use of finger spelling and hearing aids				
	Total Communication: uses *Signed Exact English*, speech and speech reading; presented in English syntax and morphology to correspond to print used in reading				
	Acoupedic Method: an early intervention, oral method; uses hearing aid without use of visual cues				
	When speaking, the teaching/treatment staff: first gains the student's attention, e.g., by flashing classroom lights, touching the student's shoulder or moving something within the student's line of vision				
	looks at the student while speaking so that the student may read lips and facial expressions; does not look at the chalk board while speaking				
	stands close so that the student has the best opportunity to use residual hearing and read lips and facial expressions and gestures				

	stands with light falling on the speaker's face to optimize the student's opportunity for reading lips and facial expressions; avoids bright lighting behind the speaker's face, e.g., a bright window that may make it difficult to see the speaker's face				
	reduces background noise, e.g., decreases classroom chatter and paper shuffling; uses carpeted floors; removes noisy airconditioning, etc. to reduce and dampen ambient noise				
	uses visual cues: gestures, *pantomime,* pictures, tangible objects, and *key words* on the chalk board				
	does not distort speech by over-enunciation; speaking too slowly or loudly, or by using single words and disjointed phrases rather than speaking in complete sentences				
	uses a vocabulary and sentence structure appropriate to the student				
	speaks slowly but *with* natural rhythm of *speech*				
	confirm sthat the student understands before proceeding (private confirmation may avoid embarrassment)				
Communication methods used with students having VISUAL IMPAIRMENTS	when speaking, the teaching/treatment staff first gains the student's attention, e.g., by calling his/her name or by touching gently on the student's shoulder				
	stands close to the student so that he/she can optimize the used of residual vision				
	faces the student to optimize the opportunity to see and interpret facial expressions				
	stands with light falling on the teacher's face				
	avoids bright, back lighting, e.g., a bright window behind a speaker makes it difficult to see his/her face				
	whenever possible, uses concrete, manipulative materials the student may see and touch				

	introduces key and/or novel concepts and vocaulary before instruction begins				
	confirms that the student understands before proceeding (uses private confirmation to avoid embarrassment)				
Communication methods used with STUDENTS IN GENERAL	classroom rules and consequences for compliance and non-compliance are clearly explained to students				
	students are asked to explain their understanding of the rules and consequences				
	occasional conferences are scheduled with students to assess their comprehension of classroom rules, assignments, knowledge and skills				
	Task/assignment requirements: are clearly explained to students				
	instructions are brief and provide essential information				
	abstract/complex language, metaphors and idioms are avoided				
	the language, sentence structure and terminology is suitable to the student's level of comprehension				
	written directions are used to supplement verbal directions				
	students are asked to explain their understanding of assignments before beginning				
	classroom routines are clearly explained to students: e.g., transition from one activity to the next; what to do when work completed; what to do when help is required				
	students are asked to explain their understanding of classroom routines				
	instructional vocabulary and sentence structure are appropriate to the students' comprehension				
Communication with parents	ongoing communication with parents keeps everyone up-to-date on problems and successes at home/school				

	teacher is kept up-to-date on medications and home events that may affect school performance				
	teacher has ongoing communication with parents/guardians to coordinate home-school education/treatment program				
Communication with teaching assistants	communication is ongoing; instructional and behavioral programs are monitored by teacher; feedback and guidance are given as required				
	assistants have a clear understanding of goals, objectives, and instructional and behavioral methods				
Communication with other treatment personnel and agencies	communication is ongoing and facilitates collaboration and coordination				
IPP Meetings	scheduled on a periodic basis; all related personnel attend: teachers; teaching assistants; OT; PT; medical; psychologist and others as required				

Communication Review Notes
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Second Review
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GLOSSARY

(Provides definitions, explanations, examples and instructional suggestions)

A

Accommodate: involves systematic modification of the materials, equipment, environmental settings, task demands, support services and/or the conditions presented to a learner so as to diminish the effect of his/her disabilities; may include decreasing auditory and visual distractions; changing the nature or form of stimulus materials presented to a learner to enhance visibility and/or changing the types of responses a learner is required to make to compensate for motor, sensory or other disabilities.

Acoupedic method: an oral method of communication that aims to develop intelligible speech through the maximum development of listening skills. The approach requires early intervention, early amplification of sound (e.g., use of hearing aids), maximum use of residual hearing, unisensory (auditory) stimulation and exclusion of all visual cues such as speech reading.

Acquisition: the initial stage of learning a new ability. For example, a learner demonstrates the ability to perform a task under *initial* instructional conditions. At this stage, the learner may not be able to *generalize* performance of the task from instructional to natural conditions in which the task must eventually be performed. In addition, because initial learning may be fragile, the learner's ability to perform the task may not be *maintained* over time.

Adapted Physical Education (APE): an individual program of developmental activities, games and sports suited to the interests, capacities and limitations of students with disabilities who may not safely or successfully engage in unrestricted participation in the vigorous activities of a general physical education program. For example, adaptions for visual impairments may include: using balls that are larger, softer, yellow and white for visibility; using balls that have noise makers within to assist localization; using contrasting bright, floor tape to mark perimeters; using goals and hoops that make sounds to assist localization; keeping the playing area free from all obstructions and always storing equipment in the same location. Adaptions for students having hearing impairments may include: using flashing lights to indicate when a foul or goal is made, and using flashing lights, hand signals and flags to indicate when to begin or stop activity. In general, rules of games may be simplified and the duration of games and innings may be shortened; backstops may be used to reduce the frustration of chasing balls.

Adapted: some examples follow of the many ways that educational materials can be adapted to accommodate students at risk of failure: a) the method of presentation of content may be modified, b) directions for assignments may be tape-recorded; c) alternative ways to respond to the questions may be developed, d) the level of reading difficulty may be reduced, e) more time for task completion may be scheduled and the number of items to be completed may be decreased, f) additional practice to assist skill acquisition, generalization and maintenance may be scheduled, g) increase spacing may be made between problems for students with visual/perceptual or fine motor difficulties, h) important concepts or words may be color-coded or highlighted, i) samples of finished products may be used as models, and j) vocabulary glossaries may be prepared for each student.

Adapted assignments: see Adapted.

Adapted computer input devices: adaptations that are made to computers to permit people with various types of disabilities to put information into computers. For example: on-screen keyboards: permit people with motor impairments or do not know how to type, to type using only a mouse; speech input systems for users who cannot type, and alternative keyboards to accommodate physical, visual and cognitive difficulties. For example, alpha-numeric keys are replaced with pictures or words, and small keys are replaced by larger keys. Touch sensitive screens displaying pictures are also used. May also involve replacement of a mouse with a trackball, track pad, mouth stick, joy stick, puffing/blowing or sipping tube or light pointer.

Adaptive equipment: any device designed or modified to permit individuals with physical, sensory and/or motor disabilities to improve performance of academic, motor, social and self-help skills; includes prosthetic equipment (e.g., crutches, walkers, wheelchairs), orthotic equipment (e.g., specially adapted scissors or eating utensils) and adapted equipment (e.g., voice activated computers). Adaptive equipment

may range from from simple devices such as adapted velcro shoe ties to complex computerized environmental control devices.

Aide (teacher assistant) tutoring: under guidance and supervision of a teacher, teaching assistants provide direct instructional assistance to students.

AlphaTalker: a portable, speech synthesizer keyboard having 32 keys with a picture mounted on each key. When a key/picture is depressed, the speech/voice synthesizer creates natural sounding speech in the form of a word or sentence. Prentke Romich, the manufacturer states that "it is easy to add new words with simple keyboard commands. Theme keys let you create special keyboard overlays so the user can participate in activity-based learning programs. And simply pressing a single key gives the user access to computer or environmental control commands. A digitized speech feature allows teachers to record anyone's voice and create very natural sounding speech output."

Alternative assignments: when adaptations cannot be made to tasks assigned to other students in a classroom that will permit learners having handicaps to participate or achieve an acceptable degree of success, alternative tasks related to the learner's needs and abilities may have to be assigned. For example, if a student integrated into a chemistry class cannot actively participate in chemical experiments, perhaps he/she can practice color discrimination by identifying the colors of various chemicals. In addition, motor control may be enhanced by having the learner pick up and pass equipment. Because students having disabilities are often behind their chronological age peers in development and because their rate of learning is often slower than average, alternative tasks should not be selected simply because they permit the individual to participate in an activity; alternative tasks should be selected because they are high priority short- or long- term objectives in a student's IPP.

American Sign Language: (ASL or Amesian): fingers and hands are used singly or in combination to make static or moving signs or gestures to represent words and phrases. ASL has its own grammar, linguistic structure and vocabulary and is a separate language, completely independent from English. ASL is the principle method of communication among deaf people.

Amesian: see American Sign Language.

Anaphylactic shock: an extreme and generalized allergic reaction in which widespread release of histamine causes swelling, constriction of the bronchioles, heart failure, circulatory collapse and sometimes death. Histamine is released in allergic reactions, including asthma.

Appropriate: appropriate methods and materials are those leading to the most effective and efficient rate of learning; they are least intrusive; least stigmatizing; most normative; target the learner's high priority, functional, chronological age-appropriate, short- and long-term objective; enhance performance, generalization and maintenance of skills learned in less restrictive environments; increase opportunities for the individual to interact with non-disabled people and improve the individual's quality of life.

Attending: orienting involves turning one's auditory and/or visual receptors toward a source of auditory and/or visual stimulation; orienting indicates awareness and initial response to a source of stimulation. Attending involves focussing one's attention (30 sec.s; 2 min.s 5 min.s etc.) on the source of stimulation and may or may not involve analysing and processing the information.

Attention deficit: *Attention Deficit Disorder* is described as a persistent pattern of difficulties resulting in one or more of the following behaviors: inattention, hyperactivity and impulsivity. *Inattention* is described as difficulty attending or focussing on a specific task. People with Attention Deficit Disorder may become distracted within a short period of time. Inattentive behavior may also cause difficulties with staying organized (e.g. losing things), keeping track of time, completing tasks and making careless errors. Hyperactivity is described as difficulty inhibiting behavior. Individuals who are hyperactive may engage in activities such as excessive fiddling, leg swinging and squirming. Impulsivity is described as difficulty controlling one's impulses. Impulsive individuals often do not think before they act. They sometimes say things that are inappropriate and regret them later, blurt out a response to a question before a person is done asking it, or have difficulty waiting for their turn in a line.

Auditory timers to cue data observation: making behavior change in a student often involves first making behavior change in the caretaker. For example, to achieve a desired change in student behaviors, teachers may have to learn to ignore highly salient, inappropriate behaviors and attend to and reinforce low salience, appropriate behaviors. Using an audiocassette to prerecord auditory prompts can be useful to remind teachers to look for and reward low salience, appropriate behaviors and thereby increase their frequency and/or duration. For example, a teacher may go to a quiet room and use a tape recorder to record a series of 1 second tones made by a flute. The tones may occur on average every 5 minutes, with a range of from 1 to 10 minutes. The teacher then turns on the recorder in the classroom while he/she is teaching. When the teacher hears the tone, she/he looks around the room and rewards the students who are actively working on assigned tasks. Students may also be taught to use auditory timers to enhance self-control; each time the tone is heard the student evaluates and records her performance while rewarding or correcting her behavior.

Augmentative communication: methods and equipment designed to support, enhance or augment the communication of individuals lacking speech; also used to supplement limited speech.

Authentic tasks: methods of assessing student performance or achievement in situations or on tasks that most closely match the challenges and standards of real life. For example: applying math skills by simulating purchasing groceries; applying computation skills by adding/subtracting in a checkbook. Authentic tasks are tasks individuals will be required to perform to function effectively in their current or future, school, community, home and/or vocational environments. Authentic tasks usually integrate knowledge, skills and attitudes from various domains such as communication, motor, cognitive, social, self-help and/or vocational.

Aversive methods: aversive methods involve the use of *punishers* (physical or emotional pain) presented following a behavior; punishers are used to reduce the frequency, duration, intensity and/or rate of the behavior they follow. Other aversives are called *negative reinforcers* in which aversives are removed when a particular behavior is performed; negative reinforcers increase the frequency, duration, intensity and/or rate of behaviors that result in removal of the aversive. *Extinction* procedures may also be viewed as aversive. Extinction is a procedure in which reinforcers, previously available following performance of a behaviour are discontinued. Extinction results in progressive decrease in the frequency, intensity and duration of a behaviour as a result of discontinuation of reinforcement. *Time-out* is a procedure in which, following performance of a particular behaviour, the performer is removed from access to various sources of reinforcement for a period of time (see Time-out). Physical restraint may also be viewed as an aversive method. The *Association for People with Severe Disabilities* has passed a resolution on the use of aversive procedures that may be found at http://www.tash.org/resolutions/R06aversive.html.

B

Behavior management: methods used by teachers, parents and other caretakers to reduce inappropriate and disruptive student behavior, includes methods for teaching students self-control and socially acceptable ways of behaving. "Fair-Pair" is a principle dictating that every inappropriate behavior targetted for reduction should be paired with a positive behavior targetted for teaching/increasing.

Best practices: "best practices" describes the most effective and efficient methods for achieving outcomes for particular types of learners. Usually "best practices" have been subjected to controlled experimental analysis, the results of which have been published in reputable scientific journals. For example, best practices for students having severe, multiple disabilities include: a) functional age-appropriate curricula, b) integration with non-disabled peers, c) community-based instruction, d) non-aversive behavior management, e) transition planning, etc.

Bolsters: bolsters are soft, firm cushions, often vinyl covered foam or a rolled towel; shaped like wedges, rectangles or rolls they are used to provide balanced, stable support to persons with physical disabilities in sitting, standing or lying positions.

Braille elevator pads: Braille pads placed adjacent to elevator up/down, door open/closed and number

buttons.

C

Catheter: a flexible tube for insertion into a narrow opening so that fluids may be introduced or removed. For example, urinary catheters are passed into the bladder through the urethra to allow drainage of urine.

CCTV: Closed-Circuit TV Magnifier: consist of a television camera that views a printed page or other materials, and a television monitor displaying the image in enlarged form. Light and dark contrast can be adjusted. Most models allow reversing the image from black on white, to white on black depending on an individual's preference. The extent of enlargement is also usually adjustable for individual needs.

Chronologically age-appropriate: these are activities, behaviors and settings used with persons having disabilities that are as similar as possible to those used by non-disabled individuals of the same age.

Classroom routines: these are the activities that characterize what happens each day in classrooms such as: entering the classroom at the start of the school day, after recess and lunch or gym; lining up for various activities; using the pencil sharpener; going to the small group table; getting one's books out for mathematics and putting materials away after an activity. Teacher management of classroom routines is essential to minimize time cost, reduce disruption and avoid the occurrence of problem behaviors. Because the nature of the routines and the characteristic difficulties that arise are predictable, well develop rules and proactive procedures should be developed to avoid problems.

Colostomy bag: a colostomy involves a surgical procedure in which a part of the colon is brought through the abdominal wall to drain the intestine; a colostomy may be temporary for weeks or months, or may be permanent; drainage from the intestine is collected in a colostomy bag for disposal.

Cognitive behavior modification: a technique designed to teach and/or modify an individual's personal self-talk and thereby to effect a change in his/her behavior. Initially, the procedure involves a teacher modeling problem-solving and self-directing verbal instructions as she/he performs the steps in a social or academic problem. For example, a teacher says aloud, "First, I have to look for the sign and decide if this is a plus or minus problem. If it is a minus problem, I have to see if the bottom number is larger than the top number ...". The teacher then helps the student solve a parallel problem, while making the same self-guiding verbal self-talk. The student then performs the task without the teacher's assistance while overtly stating the verbal self-talk. Finally, the student performs the task while making covert verbal instructions. Cognitive behavior modification has been used to teach social behaviors, performance of academic tasks, and improvement of meta-cognition and memory skills.

Cognitive disability: a condition that adversely affects the ability of a person to remember, reason, understand, learn and/or use judgement. Cognitive disabilities affect individuals having learning disabilities or mental retardation.

Commode: a boxlike structure holding a chamber pot underneath an opening in the seat on top of the box; usually the seat has arms and a back to hold a small child in place for toiletting.

Communication board: alternative device for communication consisting of a board on which have been mounted pictures and/or words or symbols representing objects, people, events and places that are important in an individual's life. The individual communicates by pointing in succession to selected pictures, symbols or words as a communication partner looks on. Communication boards may be in the form of actual boards resting on a child's wheelchair tray or desk, or they may be displayed on touch sensitive computer screens, in which case, speech synthesizers may be used to produce human speech, words or sentences when a picture, symbol or word is touched. Portable, hand-held, electronic communication boards may also perform in the same manner.

Compensatory skills: these are skills learned by people with disabilities to reduce the effects of their

impairments. For example, people having hearing handicaps reduce the effects of their inability to hear speech by learning to read lips, facial expression, body language and gestures. Similarly, people who are blind compensate for their inability to see objects in the surrounding environment by increasing their ability to hear reflected sounds warning them of walls or other obstacles.

Cooperative learning groups: students with various levels and types of abilities are grouped so that each student engages in different subtasks according to his/her abilities while working toward group goals. The students learn from each other as each student makes a contribution. To be effective, these groups must be well organized. Suitable materials must be available to each student. The cooperative goals must be clearly described. Each group member must know what they are to do and when they are to do it. The groups must be supervised and assistance must be provided when and as required. Individual and group performance and their products must be evaluated. Group rewards, contingent upon the group product and individual accountability in contributing to that product, are essential features of successful cooperative learning.

Correction: effective correction of student errors is based on an analysis of the precise nature of the errors made. For example, errors may involve a) failure to pay attention during initial instruction, b) failure to attend to discriminative/critical features of the stimulus material presented, c) failure to discriminate the nature of the problem presented, d) failure to select a strategy appropriate to the nature of the problem selected, and e) failure to implement a problem-solving strategy in the appropriate manner. Good instruction involves predicting the types of errors that are likely to occur in a particular task and selecting and implementing appropriate correction procedures as each type of error occurs. Also, to the extent possible, proactive methods should be used to avoid the occurrence of errors - errorless learning.

Cued Speech: this primarily oral method of communication uses eight hand configurations and four hand positions to supplement the visible manifestations of speech; the hand cues add information to the speech reading process so that all single sounds can be identified by persons having hearing impairments.

Current task demands: refers to the task demands an individual is currently required to perform in the environments in which he or she commonly interacts: home, school, residential, community, vocational and recreational. For example, in the community environment, a current task demand an individual may be required to perform is shop in a supermarket for the items listed on a shopping list. This task demand requires particular skills the individual must be able to perform competently to complete the task. Well planned curricula focus on teaching the knowledge and skills an individual will be required to fulfill in current and future task demands . These task demands can be identified by conducting ecological inventories of the current and future environments in which a student is likely to perform.

D

Daily living skills: these are the daily, personal maintenance skills an individual is required to perform in the environments and subenvironments in which she/he currently lives (see Current task demands). Daily living skills consist of four skill categories, including self-help, community, leisure and vocational skills. Self-help skills include eating, sleeping, dressing, bathing and toiletting. Community skills include crossing a street, travelling by public bus, using a public telephone, making purchases, etc.

Data collection devices: these are various methods for recording the frequency and/or duration of behaviors such as being on- or off-task, out-of-seat, calling-out, self-abuse, the number of steps taken using a walker, and the length of verbal utterances. Common data collection devices include using golf counters, and shopping calculators to total the number of responses. Tallies can also be made on specially designed data collection sheets to record the frequency of occurrence of various behaviors performed by a single individual or by a number of persons. Stop watches are often used to record the duration of behaviors. Often student being taught self-control, use data collection devices such as tallying the occurrence of various positive behaviors they are performing at checkpoints cued by Auditory timers (see above). For example, when a student hears a prerecorded auditory signal, she may record if she was working on assignments or day dreaming, record the number of problems completed, and/or record the number of correct answers.

Descriptive praise: generic praise such as "Great job" or "You're really a good worker" does not explicitly describe which particular aspect of the individual's performance was considered "Great" or that qualified the performer as "a good worker." As a result, the performer may take pride in an insignificant component of his/her performance while failing to perform critical aspects. In contrast, descriptive praise clearly describes critical features of the individual's performance that qualified him/her for praise. For example, "Wow! You finished 5 more of these than you did last time." Or, "Your printing is really improving; you printed all of these letters on the line." This descriptive praise tells the performer that the praiseworthy aspect of his/her performance was the number of items completed per unit of time and the number of letters printed on the line.

Detention: one example of detention policies and procedures: 1st. detention (the student cannot participate in 6 recesses; 1 recess is reinstated for each day of good behavior); 2nd. detention (the student cannot participate in 12 recesses; 1 recess is reinstated for each day of good behavior); all detentions are served in a designated detention room in the school; 3rd. detention (parents are called and asked to take the student home).

Distract when a student is performing or about to perform an inappropriate behavior, a teacher may introduce something attractive to distract and redirect the student's performance. For example, when it is apparent two students are about to fight over a preferred toy, a teacher may introduce a desirable object/activity to *other* students in the same vicinity. Either one or both of the students involved in the dispute may, of their own choice, join the new activity. Note that teacher attention is focussed on *other students who are behaving appropriately*; thus, the students involved in the dispute are not getting teacher attention (their behavior is not reinforced by the teacher), while the students who are behaving appropriately are receiving teacher attention (reinforcement) and their appropriate behavior is serving as a model for the disputing students to imitate. Of course, if this preferred technique is not effective or if there are not other students around, the teacher may have to introduce the new activity/object directly to the disputing students. The techniques of distraction, interruption and redirection operate in complementary ways to bring about discontinuation or avoidance of inappropriate behavior and substitution of more acceptable behavior. For example, when a student's level of agitation is observed to increase, rather than wait for a full-blown tantrum, a caretaker may redirect the individual to an acceptable and distracting activity that will permit physical release of energy. For instance, the student may be asked to help carry some heavy boxes to the storage room. When a student becomes focussed on someone who is trying to provoke him, his attention may be distracted and focussed on a neutral activity, when he is asked to describe his new dog. Sometimes, it is enough to offer a snack or put on a favorite videotape or familiar music to interrupt behaviors that are becoming difficult.

Door knob covers: these are plastic covers that fit over door knobs and that make it difficult if not impossible for children to make an unauthorized departure from a room because, unless the cover is gripped with sufficient firmness, it will slip around the knob without opening the door.

E

Ecological inventory: a method for developing *functional* curricula for specific groups of students having disabilities. Involves systematically surveying environments and sub-environments in which the students currently perform and in which they are likely to perform in future. The purpose of the inventory is to identify functional tasks the students are required to perform in each subenvironment. Functional task are performed in the same form in which they must be performed in natural environments, serve a necessary purpose in an individual's current and future life, and/or enhance the quality of life. Functional tasks should form an integral part of each student's curriculum.

Effective: achieves the desired outcome.

Efficient: produces the desired effect with the least expenditure of teacher and student effort, time and materials.

Electronic doors: have movement sensors that open the door when someone walks within the range

of the sensor.

Environmental restructuring: can be an effective way to reduce or avoid behavior problems by organizing schedules, and/or the physical and/or social environment to make it impossible or improbable that specific problem behaviors will occur. After environmental restructuring, students may be rewarded for not performing inappropriate behaviors and/or for performing appropriate behaviors that are incompatible with performing the inappropriate behaviors. Restructuring may involve scheduling an activity, that is characteristically difficult to terminate, immediately before a more attractive activity. Another example, may involve physically separating the desks of students who incite each other. Removal of forbidden objects or materials can be a method of temporarily avoiding problems. When alternative, appropriate behaviors have been taught and strengthened, the environment may be progressively returned to its initial or natural state. For example, forbidden materials may be initially reintroduced out of reach, then within distant reach and finally within close reach as the students are reinforced for not touching the materials.

Environmental modification: in this context, modification refers to structural changes that are made to the physical environment to enhance the performance of individuals having disabilities. Modifications may include provision of wheelchair accessible bathrooms and showers, using flashing lights to warn deaf students of fire alarms, and for students having limited vision, using tactile sensors on the floor or walls to warn of obstructions or dangers.

Essential and supportive skills: these skills include: a) domestic and family (e.g., prepares simple recipes; vacuums); b) personal and social (e.g., dresses appropriately for activity and weather); c) leisure and recreational (e.g., cooperates as a team player; plays cards): d) citizenship and community (e.g., works as a volunteer at a rest home; travels independently in the community); and e) career development (e.g., completes an off-campus work experience).

Essential steps or skills: these are the steps or skills necessary to complete a task in an efficient and effective manner; since students having disabilities are frequently behind their chronological age peers in achievement, and since their rate of learning is often slower than that of their non-disabled peers, it is imperative that students with handicaps be taught *all and only* the essential steps required to perform *functional tasks.*

Expanded keyboards: for example, the *Unicorn expanded keyboard* is a 128 touch sensitive, square board. Larger than a computer keyboard, it can be reconfigured to display 2, 3, 4 or more, large or small pictures to accommodate the impaired visual and/or motor skills of various users. For example, students with poorly developed motor control or poor vision may not be able to select small pictures. The amount of pressure or time needed to activate a square may also be modified to accommodate users with various degrees of motor control.

Expulsion: one example of expulsion policy and procedures: a student is prohibited from attending a school. In some cases, parents of these students may apply for admission of the student to another school in the same school district, but usually evidence/guarantees must be provided showing that the student will not continue to commit similar offenses. Expelled students wishing to continue their education may have to turn to home schooling or restrictive institutional programs. Expelled students are often those most in need of education and social training. As expulsion may mean the end of such training and involvement of the individual in street life and crime, expulsion must be considered as a last resort and every effort should be taken to insure the individual can receive alternative education, training and treatment. Examples of behaviors that lead to suspension and expulsion are possession of a firearm or a replica of a firearm, or possession of other weapons such as a knife; use of any weapon to threaten or intimidate; assault; property damage; possession of drugs or alcohol; theft, and disobedience of authority.

F

Faded from use: any assistance, aid or prompting provided to students with disabilities, that is not provided to non-disabled learners and that will not always be available to a learner having a disability, should

be introduced only when necessary, should be considered temporary and should be faded (progressively removed) from use as soon as possible. Often students having disabilties are taught to perform in supportive, special conditions that do not generally exist in natural environments; skills learned in this manner are not functional in natural environments.

Feedback: performance feedback provided by a teacher to a student (see Descriptive praise) tells the student when performance is correct or incorrect. Feedback may be immediate, as a student is performing a sequence of steps. As a result, the performer may be able to quickly see the relationship between a particular aspect of the task and his/her inappropriate response. Feedback of this nature may permit the student to make immediate changes to his/her performance and avoid compounding the error. Alternatively, the feedback may interfere with performance of subsequent steps and increase the number of errors. Feedback may be delayed to the end of a sequence, distancing the feedback from the point where the error was actually made. This approach may avoid interference with performance, but may make it difficult for the learner to identify exactly what he/she did incorrectly. Feedback may be explicit, clearly describing the nature of the error made, where it was made and how it can be corrected. This type of feedback may be effective during initial stages of learning. However, during later stages of learning, feedback should direct the learner to re-evaluate his/her own performance and decide how to remedy the error. In this case, feedback may be quite inexplicit regarding the nature of the error made, for instance, "Review what you did and show me how to correct the problem."

Fluency training: fluent performance is rapid, consistent and accurate, indicating mastery of a skill; fluency training provides sufficient guided/prompted practice, progressive fading of the assistance, and sufficient independent practice to achieve an acceptable level of mastery.

Fm wireless: a group amplification, fm (frequency modulation) system commonly used in classrooms of students having auditory disabilities. Teachers speak into microphones that transmits their voices through the air to fm receivers worn by the students. FM transmission allows students with hearing impairments to hear the teacher clearly anywhere in the classroom; traditional hearing aids have more restricted ranges.

Formative assessments: intermediate assessments conducted during instruction when learning is in a formative stage and provides feedback to the teacher and student about the effectiveness of the teaching/learning process so that intermediate changes can be made to improve instruction/learning. Summative assessments are conducted at the end of instruction and assess the sum of the instructional process.

Functional: a skill is functional if it serves a necessary purpose or function in an individual's life. Functional skills should be taught in the same form in which they must be performed in natural environments. For example, tasks such as fitting pieces into formboards are not functional because there is usually little demand for performing this task in natural environments. Teaching students to fit pieces into formboards teaches skills such as shape, size, orientation ... discrimination in a generic rather than a functional form. Functional forms of these same skills include, for example: matching size and shapes of dinner dishes, bread plates, soup bowls, etc. while sorting and putting dishes away in a cupboard. Teaching functional skills directly is more efficient than teaching generic skills that rely on generalization of the generic skills to functional applications.

Functional analysis: a method of observing the conditions under which a problem behavior, for instance screaming, characteristically occurs so as to *hypothesize* a *possible* communicative function the problem behavior may be serving to the individual: for example, escape, avoidance, attention-getting, self-stimulation, or getting a desired object, condition, event or person. Environmental conditions are then modified to test the validity of the hypothesis, for example, "screaming is used to terminate boring tasks." If the hypothesis is validated, indicates that the problem behavior serves a particular function, for example terminates a boring task, a program is developed to teach the individual to communicate his/her desire to terminate boring tasks in more acceptable ways.

Functionally equivalent: often students who exhibit inappropriate behaviors such as screaming to get attention are taught to perform more appropriate ways to get attention such as holding their hands up to attract assistance. Unfortunately screaming and hand raising are not functionally equivalent. Screaming is a highly salient behaviour that instantly attracts attention; hand raising is a behaviour of low salience that

is, therefore, frequently ineffective in attracting attention. If one behavior (appropriate) is to replace another (inappropriate), the behaviors must be functionally equivalent, that is they must be equally effective in serving the same function for the performer, for example, result in the same rapidity, type and amount of reinforcement. Otherwise, as in the foregoing example, the individual will soon revert to screaming.

Future task demands: social, personal, vocational, academic ... demands an individual will likely be required to perform in school, residential, community ... environments in which he/she is likely to interact in future.

G

Gastrostomy tube: gastrostomy is creation of an opening into the stomach to provide for the administration of foods and liquids when stricture of the esophagus or inadequate muscular development or function make swallowing difficult or impossible. A gastrostomy tube is a tube inserted into the gastostomy to carry food and fluids to the stomach.

Generalization: refers to the ability of a learner to perform a task under conditions that differ from initial instructional conditions. Ideally, good instruction should teach learners to identify the essential/discriminating characteristics under which a task should be performed. Thus, although non-essential elements of conditions may change in new circumstances, the performer learns to identify the presence of the essential/discriminative conditions identifying when it is appropriate to perform the task. To facilitate generalization of learning, classroom instructional conditions must focus on discriminative features common to the natural conditions under which learners are eventually expected to perform. Learners must be taught to identify occurrence of these discriminative features in both instructional and natural conditions.

Gurneys: wheeled cot or stretcher; wheeled hospital bed

H

Hand splints: examples of two types of hand splints: a) a *resting hand splint* consists of a curved piece of plastic on which the open fingers rest and the thumb is held in an abducted position; a piece of plastic held to the bottom side of the wrist with straps keeps the wrist in a neutral or slightly extended position. This splint keeps the wearer's hand in an open position to prevent deformities. b) A *thumb loop splint* involves a strap looped around the base of an individual's thumb, pulling the thumb away from the forefinger. The loop is attached to a band around the wrist. This splint inhibits increased muscle tone and keeps the hand free for movement.

Head mounted wand/pointer: a wand mounted on an individual's head. The device can be used to point to objects or select keys on computer keyboards. Head pointers (stick mounted to and controlled by movement of the head) are also used to point to objects or to press switches and to select keys on keyboards. Light pointers, also usually worn on one's head are used to direct a beam of light or point to objects (e.g., pictures or symbols on a communication board). Mouth sticks may have tips used for writing, turning pages or picking up things.

High interest, low vocabulary. reading: for example, reading material for a girl in grade nine who reads at the grade three level would use vocabulary and sentence structure at the grade three level of difficulty while describing topics of interest to girls at the grade nine level.

Human Rights Committee: the mandate of a Human Rights Committee is to ensure that all training and treatment procedures, whether aversive or not, are not merely the least intrusive, but that they are also the most effective, positive, efficient, ethical, legal and protective of individual rights and freedoms. The committee reviews behavior management and treatment procedures, rationale/evidence for the use of procedures, personnel using and supervising procedures, and record keeping and other procedural aspects. The committee may be comprised of medical, legal, religious/ethical experts, professional (having specialized related knowledge/skills), government, parental, advocacy and lay representatives.

I

Inappropriate behaviors: some behaviors are generally inappropriate in all environments, for example, self-abuse. Other behaviours are inappropriate in some environment but not in others. For example, in classrooms, screaming to gain attention is usually inappropriate, while raising one's hand for assistance is often appropriate. Alternatively, when one is drowning, it is usually better to scream than to silently raise one's hand to gain assistance. Inappropriate/appropriate behavior is often normatively defined according to context, age, circumstance and periods of history. For example, in recent times, it was acceptable to dye one's hair pink or chartreuse. To judge appropriateness of behavior, one must ask what the student's chronological age peers are doing. Appropriateness of behavior should not be defined in an arbitrary way by intolerant judges. For example, hyperactivity should not be diagnosed simply on the basis of a caretaker's intolerance of normally active children.

Increased spacing: putting greater space between successive sentences or paragraphs in a text so as to reduce visual density.

Individual Educational/Program Plans (IEPs and IPPs): a written Individual Program Plan prepared for a school-aged individual with disabilities is developed by the student's teacher, parents/guardians and other personnel that have/will work with the student, including social workers, psychologists; speech, physical and occupational therapists; nutritionists, etc. The IPP a) describes the learner's disabilities, b) reports on the current level of achievement/functioning in areas relevant to the individual's disabilities: academic, self-help skills, sensory, physical, vocational, etc. c) describes the educational/treatment needs within each of the foregoing areas, d) specifies long- and short-term educational/treatment objectives, e) indicates who is responsible for implementing each part of the educational/treatment plan, and f) describes educational/treatment and follow-up testing schedules (when treatment will begin and how long it will last). IPPs also recommend educational and treatment placements and adaptive equipment, and describe the extent to which the child will participate in regular education programs with non-disabled students.

Individualized: designed to address the needs of an individual learner with respect to a) teaches knowledge, skills, attitudes and values of importance to the individual, b) teaches in a manner that is optimal to the individual, for example, presents *material* to the individual in a *form* that best address the learner's ability to attend to and process the information, and presents the individual with a *response mode* that best suit the learner's ability. In essence, individualized instruction considers a learner's needs, abilities and disabilities and designs individually optimal tasks, methods and materials for effective and efficient learning.

Induction: an induction loop is a wire encircling a room (or area within a room or even a car), near the ceiling or floor and receives input from a microphone placed nearby. Hearing aids with a telecoil switch turned on, or earpieces with telecoil equipment, can pick up the sound that is carried within the magnetic field surrounding the loop. Users need to sit within the loop area to pick up the transmissions. Interference from fluorescent lights can cause uneven sound quality.

Infrared: infrared sound systems in classrooms carry sound from a teacher's transmitter to a student's receiver. Fluorescent and incandescent lights may cause Interference.

Input/output modes: input modes refer to the ways information is presented to students. For example, pictorial input may be used with learners who are unable to read; auditory input may be used with students having visual impairments. Output modes refer to the methods students may use to respond to task demands. For example, students unable to speak may be able to point to pictures to express their responses. Students with poor manual control may be able to express a response by using a head pointer to activate a touch sensitive computer screen.

Instruction in appropriate practices: may involve, for example, after school instruction of a student in positive ways of responding to problems and issues the student commonly faces during the day.

The student is taught adaptive ways of responding and may be given the opportunity to practice these responses during role playing.

Instructional schedule: scheduling is an important consideration used to enhance learning and avoid behavior problems. The *Premack Principle* involves scheduling personally high preference activities after low preference activities so as to motivate learners to perform the former (in an acceptable time and manner) before engaging in the latter. Care should be taken to avoid scheduling an excessive number and/or type of activities that require the same cognitive, sensory or physical abilities to avoid undue fatigue, frustration, increased errors and task rejection. During a lesson, a) before beginning new instruction, previously taught, knowledge and skills, related to the tasks that are to be taught, should be reviewed and returned to fluency, b) newly acquired knowledge and skills should be given sufficient practice to strengthen their durability, and c) knowledge and skills taught during previous lessons should be reviewed to enhance their maintenance and generalization.

Integration: involves putting together individuals with and without disabilities. Integration may occur during academic and/or non-academic activities such as recess, lunch, music, physical education, chemistry, reading and mathematics. Integration or mainstreaming usually involves placement of a student with disabilities in a regular education classroom (ideally in his/her neighbourhood school) and/or in natural environments in which non-disabled people (peers) usually perform. Integration may involve *Reverse Mainstreaming* - when non-disabled children participate in special education classrooms, playing and learning with children who have disabilities.

Interpreter: an interpreter/transliterator facilitates communication between hearing and hearing-impaired persons using a manual sign system such as American Sign Language to translate spoken language into a form understood by hearing-impaired persons, or to reverse translate from the sign language used by hearing-impaired persons into spoken language understood by hearing persons.

Interrupt: see Distract.

Intravenous feeding: administration of fluids through a vein. Persons suffering from severe hydration may be fed in this manner; medication may also be administered through veins. Rubber or plastic tubing conducts fluid from a container to an intravenous needle or small gauge catheter. The rate of flow of liquid may be controlled by a control clip on the tubing; there is a glass or plastic drip regulator in the line through which the rate of drip can be observed.

Itinerant specialist: often specialist personnel for auditory or visual disabilities travel from school to school conducting assessments, recommending specialized materials and methods, training personnel in methods of working effectively with students having specific difficulties, and sometimes working directly with students having sensory disabilities.

K

Key words: knowing that children with hearing disabilities may have difficulty hearing/understanding instruction, explanations or other verbal communications in the classroom, teachers may write key words in a column along the side of the chalk board. The teacher may also point to each key word, essential word in a task, assignment or discussion, as it is mentioned. For some students, key words and their meanings and examples or explanations may be put into a personal glossary to which the student can refer as required.

Keyguards: these are guards placed over computer keyboards. They are used by people who need some means of preventing accidental keystrokes; keyguards are a common keyboard modification. A keyguard is usually a plate that fits over the top of a keyboard and that has holes over some or all of the keys. The keyboard gives the user a place to rest his/her hands while typing, but is designed primarily to prevent inadvertent key presses caused by poor motor control or other factors.

L

Lap board: a board that provides a stable surface on a user's lap for eating, writing, working, hobbies and communication. Lap boards or trays may be attached to wheelchairs or they may be in the form of portable communication boards with pictures, objects and/or symbols an individual can point to for communication.

Large keys: large key computers may be used with students having poor motor control who have difficulty selecting a single small key. See the Unicorn Expanded Keyboard.

Large-type books: used by students with visual impairments. The type used is usually at least 16 to 18 points. However, one should keep in mind that the relationship between readability and point size differs somewhat among different type faces. Leading, or spacing between lines of text, should be at least 25 to 30 percent of the point size. This is because, when reading, many people with partial sight have difficulty going from the end of one line of type to the beginning of the next. Complicated, decorative or cursive fonts should be avoided. There is some evidence that sans-serif fonts are more legible when character size is small.

Learning centres: a learning centre within a classroom or serving the broader community of a school is an area designated for learning particular types of knowledge, skills, attitudes and values. For example, centres may be established for language or computer learning. The centre houses all of the equipment and materials required to learn the knowledge, skills ... for which the centre has been established. Learning centres may be used to provide students with enrichment or remedial activities. Well organized classroom centres give students opportunities to work alone and/or with assistance as required. Students may be able to enter the centre, select assignments from their personal folders, perform the assigned tasks, check their answers using an answer sheet and record their performance.

Least Restrictive Environment (LRE): in an LRE, students with special education needs are offered programs, as close to home as possible, to promote maximum interaction with regular education students,. An LRE is an educational setting or program that provides a student with disabilities the opportunity to work and learn to the best of his or her ability. An LRE also provides the student as much contact as possible with children without disabilities while meeting all of the student's learning needs.

Least intrusive: a behavior change method that is least disruptive to an individual and the people around him/her. For example, it would be less intrusive to get a student to return to assigned seat work simply by scowling at his out-of-seat behavior, than it would be to verbally ask the student in front of his peers to return to work.

Lip reading: the skill of identifying sounds in speech by the shape(s) and action(s) made by a speaker's lips. The task is often made more difficult when people do not speak in natural ways. For example, when a speaker slows the speed of speech or distorts the shape of his/her lips during over-articulation. Moustaches can also obscure visibility of a speaker's lips. People with hearing disabilities use lip/speech reading in conjunction with reading facial expressions, gestures, topical context, sentence structure, etc.

M

Maintenance: refers to the ability of a learner to perform a task after successively longer periods of time following instruction. During the initial stages of instruction, newly acquired skills may be fragile and subject to rapid deterioration of the learner's ability to perform the task. Often maintenance of learning is not achieved without specialized instruction designed to enhance maintenance. In the absence of these techniques, failure to achieve maintenance of learning is common among both disabled and non-disabled learners.

Management methods: behavior management involves the use of a variety of techniques to increase, decrease, maintain and/or generalize behavior. Behavior management techniques employed in any situation

should be based on a) detailed observations and analysis of the relationship between the performer, the behavior and the conditions the precede and follow the behavior, b) selection of management methods that are least intrusive, least restrictive, most effective and efficient; positive/non-aversive; most normative and that seek to teach socially acceptable, functionally equivalent, adaptive behaviors rather than simply remove inappropriate behaviors, c) continued observations and analyses of the effectiveness of the intervention, and d) data-based adjustments to improve the effectiveness and efficiency of the methods.

Minimum verbal cueing: there are 3 types/levels of verbal prompts: a) asking a general question (e.g., "What comes next?"), b) telling *what* is expected (e.g., "Open your lunch bucket."), and c) tell *how* to do what is expected (e.g., "Lift the lasp."). During initial instruction, verbal cueing may be maximum: "Open your lunch bucket" AND "Lift the lasp." However, as instruction progresses and the learner becomes more competent, verbal cuing should be minimized so that the learner has to apply problem-solving skills rather than simply follow directions.

Modelling: demonstration of the steps involved in performing a task. The task may be modelled/ demonstrated in whole or in part. The learner is expected to imitate the model provided by the teacher. The learner may imitate each step directly following its model, may imitate several steps in succession, or imitate a series of steps following their demonstration.

Most effective: see Effective and efficient.

Mouth sticks: see Head mounted wand.

Mowat electronic sensor: a lightweight, hand-held device similar to a flashlight. It detects objects by sending out brief pulses of high frequency sound (ultrasound). Users can tell how close they are to an object by the rate of vibration produced by the Mowat Sensor. The device ignores everything but the closest object within the beam.

N

Nasal mask: a clear, plastic mask placed over an individual's mouth and nose; oxygen is supplied to the individual by a tube leading to the mask.

Nasal cannula: a tube of soft rubber or plastic inserted through a nostril to provide oxygen to the lungs.

Nasogastric tube: a tube of soft rubber or plastic inserted through a nostril into the stomach for the purpose of feeding and withdrawing gastric contents.

Natural rhythm of speech: sometimes when people are speaking to a person having hearing disabilities, words are spoken very slowly and carefully. As a result, the words, sentences and ideas being expressed may become distorted and more difficult to understand. Although it is desirable to use clear enunciation, care must be taken to avoid fracturing words and sentences into a collection of phonemes that are difficult to reconstruct into meaningful messages. While using careful pronunciation, one should try to maintain the natural flow of language in which word sequences, sentences and thought structures provide clues to the meaning of words and sentences within the sequence.

Natural environments: instructional environments are often organized to assist delivery of instructions, materials, feedback and reinforcers in efficient ways. For example, students may use work books in which they draw lines from objects in one column to numbers, objects or labels in another column. This format may have instructional benefits, but it is not an activity that one is commonly required to perform in natural environments. Natural environments are social and physical conditions in which people are required to perform in their daily lives. These environments may be broadly classified as community, residential, recreational, vocational and academic. To the extent that differences exist between instructional and natural environments, students will experience greater difficulties transferring skills learned in one environment to performance in another environment. The greater a learner's cognitive disabilities, the more difficulty he/she

will experience transferring learning between dissimilar environments. Thus, particularly for low functioning students, it is important that instructional environments be as similar as possible to natural environments.

Non-aversive methods of management: see Aversive methods.

Norms: for example, to norm a test on grade three students, that is to determine the *average*, the *range* and the *distribution* of scores of 1,500 grade three students in a city, a test developer would carefully select a random and representative sample, *norm group*, of grade 3 students from across the city (e.g., 150 students) and give them the test. If the norm group has been well selected to represent average as well as below and above average grade three, female and male, rich and poor students of high and low intelligence ..., the scores obtained on the test will represent the scores that would have been obtained if all 1,500 students had been tested. Once the norms have been established, that is, once the *average*, the *range* and the *distribution* of scores of the 150 grade three students have been determined, any of the remaining students in the population of 1,500 students may be tested on the same test. Their scores will be compared to the scores obtained by the 150 students in the norm group, and since the norm group represents the 1,500 grade three students, the test interpreter will know how each student's score compares to the scores that would have been obtained by the 1,500 students.

O

Occupational Therapy (OT): therapy provided by an occupational therapist helps individual development of physical skills that aid in daily living. The therapy focuses on sensory integration, on balance and coordination of movement and on fine motor and self-help skills, such as dressing, eating with a fork and shaving with an electric razor.

Optacon: an Optacon uses a tiny camera to view text and represents the shape of each letter on a raised dot matrix so that it can be read by touch. The letter is not represented by Braille code, but reproduced in the same shape as in the text. This device can be used alone to read any text on paper, such as books, fax, magazines and labels on foods or on medicines. Using an Optacon requires a high degree of touch sensitivity and a long period of training.

Orientation and mobility: orientation refers to one's ability to determine his/her location in space. For example, a person who is blind and who has been mingling in conversation with people in various parts of an unfamiliar room, may know her orientation to the entrance to the room because a) she remembers all of the many steps and turns she had taken during several conversations, because b) she can feel the draft from an open window and she knows its spatial relationship to the door, or because c) she can smell the fragrance of cooking coming through the open door she had initially entered. Mobility refers to an individual's ability to move across space to a desired destination, for example, the ability to move across a room of furniture and groups of people engaged in conversation. Mobility may be aided by use of a standard white cane, or a cane that has a built-in sensor that transmits and receives ultrasound waves, or with the tactile sensation of feet on the floor/carpet, or by listening to sounds of people in conversation or as they move across the room, and/or in smelling the fragrance of shaving lotion, deodorants and perfumes.

OT: see Occupational Therapy

P

Pace of instruction: pace of instruction refers to a) the amount of time a learner has to process information as it is presented, b) the amount of time available to formulate an answer or make a response following a question or a task command, and c) the amount of time between tasks. The pace of instruction should be as rapid as possible to maintain learner interest and attention, and as slow as necessary to give the learner sufficient time to determine the type of response required and to make the response in an appropriate manner. Sometimes, when students with special needs are being taught, the pace of instruction is too slow, too much dead time is available within and between tasks and the students become distracted and behavior problems arise. Instruction that is too slow may actually teach poor attention skills. The time

between tasks, transition time, is often a time when behavior difficulties arise. See Transition time.

Pantomime: conveying meaning through expressive use of hands, arms, body, legs and facial expressions. For example, pantomime, different from modelling in which actual materials may be used, involves simulation in which an imaginary pitcher is raised to pour imaginary water into an imaginary cup. Pantomime is at a higher level of abstraction than is modelling with actual pitchers, water and cups. Pantomime may be used as a way of fading modelling from use - brief gestures may be used to remind a learner of steps in a task.

Pathsounder: a device assisting travel by people with visual impairments; a small sonar set located on a user's chest and supported by a neck loop. The user has a choice of audible or vibratory stimulation. The device signals the presence of objects in front of head and chest within a specific range (usually set at six feet). The device protects the upper half of the body and warns of people/objects in the path; no signal is given when the path is clear. It can aid deaf-blind persons and blind person in wheelchairs.

Peer tutoring: students who are competent in performing particular tasks may be used to tutor peers who are less able to perform. *Peer tutors* are of the same age and level of functioning as the students they assist. *Cross-age tutors* may be older and at a higher level of functioning. *Ripple tutoring* occurs when a few students are taught a task and learn to tutor each other. These tutors then teach other students the task and methods of tutoring. Tutoring is usually done on a one-on-one basis. Effective tutoring requires a) a suitable match between the tutors and the students being tutored, b) a tutor who knows how to tutor, for example, how to gain and focus attention, model, prompt, test and correct/reinforce responses, and c) supervision by a teacher to quickly identify and correct inappropriate procedures or relationships.

Perimeter alarms: may involve the use of pressure sensitive carpets at exits, bracelets that activate an alarm when a wearer approaches a door, or a light or electronic beam that is broken and activates an alarm when an individual crosses a boundary. These devices are often used with children who wander into dangerous situations, who are "runners" who love the sport of being chased, and with people having Alzheimer disease who have a propensity to wander and get lost.

Peritoneal shunt: a plastic tube connecting the fluid-filled ventricles of the brain to the abdominal cavity to allow fluid to drain if there is an obstruction to normal fluid flow. Shunts are used to treat hydrocephalus.

Perkins Brailler: a manually operated machine, like a typewriter, having seven keys, one for each dot of the Braille cell and one for the space bar. By pushing different combinations of the six keys, raised dots representing letters of the Braille alphabet, Braille contractions and Braille mathematical numbers and symbols are produced on heavyweight Braille paper inserted into the machine.

Phonic ear: describes a type of radio-frequency/hearing aid for students in schools. The teacher wears a microphone/amplifier which is also a radio transmitter and the child wears a radio receiver/hearing aid. The teacher's voice is heard above the usual clatter and reverberation of the classroom. The system allows transmission over several hundred metres making it ideal for the school playground.

Physical Therapy (PT): treatment of physical disabilities given by a trained, physical therapist include the use of massage, exercise, etc. to improve mobility and gait and to modify strength, balance, muscle tone, and posture while improving the use of bones, muscles, joints and nerves.

Physical prompting: direct physical assistance by a teacher to guide student responses. There are four types: a) partial physical (e.g., gentle push or nudge), b) full physical (e.g., grasping a hand and moving it through all aspects of performance), c) shadowing, a combination of partial and full prompting (e.g., teacher does not touch the learner's hand until assistance is required and may, at that point, provide full or partial assistance), d) graduated guidance involves systematically introducing more or less physical prompting as required.

Private and positive review of rules and warning of consequences: when teachers publicly remind misbehaving students of the rules, they may attract attention to the misbehavior which then

serves as a model for other students showing them how to get teacher attention. In addition, drawing peer attention to the misbehaving student may be rewarding to the student herself and result in increased frequency of the misbehavior. Discrete, private reminders of the rules and consequences, in a positive way, may maintain positive relations between teacher and student and gives the student a choice to make; this approach may also avoid the difficulties described above.

Proactive: *proactive* approaches to behavior management use environmental modification to avoid the occurrence of predictable problems. The alternative is to wait for inappropriate behaviors to occur and then use a *reactive* approach to cope with the problems. Proactive approaches are positive methods of behavior management and permit teachers to reward both the absence of problem behaviors and the performance of behaviors that are incompatible with the problem behaviours. (see Environmental modification and Behavior management).

Prompting: refers to the level and type of assistance offered by a teacher to a student. Prompting may include verbal, gestural, modeling and/or physical assistance offered individually or in various combinations.

Prone standers: a trunk-supporting, standing frame permitting users to stand up while leaning forward. The device may be free-standing or lean against a table/tray or other work surface. The user's feet rest on a platform. To further steady the user, there are lateral supports as well as posterior straps or pads that hold the feet, knees, buttocks and trunk in place. The device frees upper extremities; promotes bone growth; facilitates social interaction; promotes joint stability; stretches muscles to help prevent joint deformities, and promotes normal bowel and bladder function.

Prosthetic adaptations: replacement of an absent part by an artificial substitute, for example, a prosthetic arm, hand or leg; or aiding a natural function with an augmenting device such as a hearing aid or eyeglasses.

PT: see Physical Therapy.

Q

Quad canes: aluminum canes having four legs and feet radiating in a square configuration from the base of the cane to provide stability; the cane is free standing when not in use.

R

Raised-line paper: raised-line paper assists children and adults having visual disabilties to write and print by providing embossed lines across the page so that the user can feel where to stop the bottom and/or top of upper and lower case letters.

Rate: the average frequency of occurrence of a behavior during a unit of time such as one minute, hour or period. Calculated by dividing the number of occurrences by the number of time units, for example, 10 minute periods.

Reasonable level of challenge: during the acquisition phase of instruction, when new responses are being learned, students should be able to achieve an 85% rate of correct responses. Lower response rates may indicate that the task is too difficult and presents an unreasonable challenge. High error rates may indicate that further task analysis (breaking the task down into smaller parts and/or identifying subskills that have not been taught) is required, or that additional prompting (teacher assistance) is *temporarily* required to improve student performance.

Redirect: see Distract

Reinforcement: the rate, frequency, intensity or duration of a behavior may be increased if the behavior is followed by a pleasurable consequence, either *positive reinforcement* (providing praise, food, attention or recognition), or a *negative reinforcement* (removal of an aversive stimulus following performance of a behavior).

Relevant: test norms are relevant to a particular student if the test has actually been normed on an adequate and representative sample of individuals having the same characteristics as the student, with respect to, for example, level of intelligence, age, education, diagnostic category, etc. For instance, if a test is being used to assess the mathematics skills of an individual with a learning/reading disability and the test has not been normed on students with learning/reading disabilities, it will not be know to what extent, if any, the reading skills of the students with learning disabilities may interfere with performance on the mathematics test. Ideally, if the mathematics test is valid, it will not be affected by reading skills. The test may not be relevant to students with learning/reading disabilities unless the norms have been established on an adequate and representative sample of students having learning/reading disabilities, and it has been demonstrated, that reading skills do not affect performance on the mathematics skills tested. See also Normed.

Reliable: a reliable test is one that gives the same results when used by different examiners in *standardized* ways, under different, *standardized* conditions, at different times, assuming of course that the characteristic being tested actually remains constant in each of the foregoing conditions. *Test-retest reliability* is a statistically determined index of the degree of similarity between the results of the same test being administered, by the same examiner, on two separate occasions, to the same group of examinees. *Alternate form reliability* is a statistical index of the degree of agreement between test results obtained by two forms of the same test administered by the same examiner, on two occasions, to the same group of examinees. *Internal consistency reliability* is a statistical index of the degree to which two parts of the same test, administered during the same testing session, and that are assumed to measure the same skill, produce similar results.

Residual vision: although an individual may have a serious visual disability, he or she may still have residual vision that can be used to distinguish light from darkness or large shapes such as a person or car, or movement of large objects such as people, cars and buses. Students with visual impairments are taught to use residual vision to the extent possible.

Residual hearing: although an individual may have a serious auditory disability, he or she may still be able to hear sounds at particular frequencies or intensities. Students with hearing impairments are taught to use residual hearing to the extent possible.

Response mode: depending on the nature of tasks one is asked to perform, response modes can be varied to accommodate individuals having various types of disabilities. For example, in response to a mathematical addition task on a test, a student may be required to write or verbalize the answer; point to or circle the correct response from among a list of alternatives, select a key on a computer corresponding to the correct answer, fill-in a circle on a computer scoring sheet or use a calculator.

Review/drill/practice: learners should be given the opportunity to review: a) newly acquired skills that have not been mastered, b) tasks having a high error rate, and c) tasks that have not been recently reviewed. As tasks approach mastery, they may be reviewed less often. Periodic practice of mastered tasks will enhance the student's maintenance of the ability to perform the tasks.

Rochester method: a method of communication used by students with hearing impairments; the method employs finger spelling in conjunction with speech, speech reading and amplification.

S

Satiation: reduction of the effectiveness of a reinforcer to maintain the frequency, duration, rate and/or intensity of a behavior because the reinforcer has been used too often or in quantities that are too large. Too much of a pleasurable thing can become quite aversive. It is important that teachers, wanting to avoid satiation, use a variety of reinforcers, verbal, social, tangible, activity and token.

Scheduling: test scheduling refers to the time during which a test is administered. For example, if a test is designed to measure strength, it would not be wise to schedule its administration following intensive physical activities using the same muscles as those being tested. The same type of consideration should be given to tests measuring sensory and cognitive skills that may suffer from fatigue after overuse. Scheduling also refers to the time allocated for completion of a test. Standardized tests usually specify a period of time during which the test should be completed. Offering more or less time to complete a test may violate procedure and invalidate use of the test norms. Often, students with disabilities are offered additional time to complete standardized tests.

Segregated: educational or treatment programs conducted in separate classrooms, schools, wings of schools, residential facilities or treatment centres, apart from regular or mainstream programs in which non-disabled persons characteristically participate. Segregated programs reduce or remove opportunities to interact with non-disabled peers. Segregated programs may serve homogeneous groups of individuals having the same diagnosis, for example, hearing impairments, or the programs may be heterogenous, serving students with various types of disabilites having the same general level of educational or treatment needs.

Sensory motor training: training of this nature may take many forms and may make many claims about the academic benefits derived. Some of these claims may not be supported by objective, controlled, experimental analyses. Generally, the training involves coordination of auditory, visual, tactile, kinesthetic and/or proprioceptive senses with fine- and gross-motor skills. The purpose of the training may be simply better coordinated sensory-motor performance such as the ability to catch a ball or accurately throw a ball to a target. Alternatively, and more controversially, some practitioners claim that the benefits generalize to improvements in academic performance.

Side-effects: unintended consequences of educational, behavioral, treatment or medical interventions; the effects may be beneficial or detrimental.

Signed Exact English (SEE): uses signs, many taken from Ameslan and from finger spelling to represent the order, syntax and grammar of the English Language. SEE is parallel to spoken and printed English. Although ASL is the language used by most adults in the deaf community, SEE signs may be more widely used in the younger, school-age, deaf community. The biggest user group consists of deaf and hard-of-hearing children and their parents, families, friends and teachers.

Slate and stylus: a device used by blind individuals to write in Braille. The standard pocket slate is a metal strip 81/4 x 3/4 inches. There are 28 cells divided into two lines across the slate. Each cell has 3 indentations down each side. Each cell is designed to represent all combinations of from 1 to 6 dots that may be selected to represent all Braille symbols. The slate is placed over a piece of paper. The stylus, a small bulb-like, plastic or wooden handle, fits within the user's closed palm. A pin on the stylus is used to press through one or more of the six holes in each slate cell. As the stylus presses through the slate, it makes an indentation on the paper below. Words and sentences are written from right to left. When the paper is removed from the slate and is turned over, the words and sentences are represented on the paper by raised dots, Braille. Braille is read from left to right.

Speech synthesizers: some speech/voice synthesizers read aloud (convert into human speech) the textual information shown on the screen of a computer. The rate, pitch and volume of the speech can be adjusted. For example ,the text may be read in a male or female voice. An individual can type a message into a computer and a speech synthesizer will convert the typed message into spoken language. For people unable to type, pictures may be shown on the keyboard or may be illustrated on a touch sensitive screen. When one of these pictures is selected, for example, a picture of a toilet, a speech synthesizer may be used to verbally express the message, "May I go to the bathroom, please"? Portable, hand held, dedicated, speech synthesizers are also available that convert typed or pictorial information into single words or sentences.

Speech reading: see Lip reading.

Stand-in table: for people who have fairly good balance and trunk control, vertical standers, standing boxes, and standing tables are often recommended because they generally provide less support than a prone

or supine stander. Vertical standers, which usually provide three-point stabilization in a fully upright or vertical position, with supports at the knees, hips, and lower torso, are suited to children who have postural insecurity or are developing lateral weight-shifting skills. Vertical standers come in three types: a) a *standing frame* consisting of two uprights with pads or straps to provide a little extra stability, b) a standing box that enables the user to stand in a contained area and c) a *standing table* with a box-like area for standing support or stability and a high table surface with a cutout for the user's trunk.

Standardized manner: standardized test administration specifies the physical conditions under which a test must be administered, (e.g., a soundproof room for an audiological test); the instructions that must be given to the examinee (on many tests, no variations in instructions are permitted); the amount of time that the examinee is given to complete the test (time limits are often precisely fixed); equipment that may or may not be used (e.g., calculators); the method in which examinees are to make their responses (e.g., computer optical scanning sheets); the training of examiners, and the manner of scoring and interpreting the test. Failure to follow one or more of the standardized features invalidates use of the norms.

Step-size: step size is the size of step a student must take or amount of skill he/she must acquire to progress from one stage of instruction to the next. For example, if a teacher is teaching students letters of the alphabet, based on his/her estimate of student capabilities, the teacher must carefully decide how many letters to teach at one time (e.g., a, b, c and d) and how well the students should master recall of those 4 letters before teaching the next 4 letters. Choosing suitable instructional step sizes avoids overwhelming or boring students. To accelerate learning, that is to learn as much as possible in the least amount of time, the largest step-size possible should be chosen that will lead to effective and efficient learning.

Stimulus cuing: methods of increasing the salience of critical (important or discriminative) aspects of stimuli so as to focus student attention on those features and improve discrimination learning. For example, if students were being taught to discriminate the play and rewind buttons on a tape recorder by looking at the directions in which the darts on each button face, the darts could be temporarily painted yellow to focus student attention on those features. If only the forward dart were painted, however, the student would not have to discriminate the direction of the darts, the discriminative feature, but only look for the yellow or not yellow darts. However, if the darts on both buttons were painted yellow, the student's attention would be attracted to the darts, but to discriminate play from rewind, the student would also have to discriminate which yellow dart faced forward. Because the student learns to rely on the direction of the darts rather than on the yellow color, the yellow can be progressively faded without lose in the student's newly acquired ability to make the discrimination of the direction in which the darts point.

Study carrel: a place for private study; may be a part of the classroom, separated by a room divider; may be an empty refrigerator packing case or a closet; the carrel provides a place for students to study without interruption or distraction. A carrel may also be used like a private office to reward good behavior

Study buddy: unlike peer tutoring, pairs of students, study buddies, assist but do not teach each other. In some cases, a more capable student may take notes for a student having motor difficulties, may retrieve materials for a student with ambulation problems, may read printed instructions to a student having visual impairments, or may provide reminders to students having memory problems. Study buddies and peer tutors must provide assistance in an unobtrusive manner so as to avoid stigmatizing the student being assisted. In addition, to avoid unnecessary dependence, assistance must be provide only when necessary - all efforts should be taken to make the assisted student as independent as possible.

Subject area learning: refers to academic, subject learning such as reading, literature, mathematics, science, social studies, history, etc.

Suctioning equipment: involves, for example, putting a catheter through one's nose or throat into the trachea to remove secretions by suctioning.

Summative and final assessments: formative assessments are conducted during instruction when learning is in a formative stage. The assessment provides feedback to the teacher and student about the effectiveness of the teaching/learning process so that intermediate changes can be made to improve instruction/learning. Summative assessments are conducted at the end of instruction and assess the sum of

the instructional process.

Suspension: one example of policy and procedures: in-school suspension involves temporary removal of all privileges; regular classes cannot be attended; the student is given assigned work under supervision in a private area. If disruptive once, the student is given a warning; if disruptive a second time, parents are called and the student is removed from the school. Out of school suspensions are for five days. Examples of behaviors that lead to suspension and expulsion are possession of a firearm or replica of a firearm, or possession of other weapons such as a knife; use of any weapon to threaten or intimidate; assault; property damage; possession of drugs or alcohol; theft; disobedience of authority.

T

Talking books: to read talking books on cassettes has been described as being similar to the ancient way of reading scrolls - there is a lot of winding and rewinding. In a digital, talking book, the reader has random access to the sections via the talking table of contents. The digitization of books intended for persons with disabilities provides opportunities to increase the quality and availability of information to people having disabilities.

Talking calculator: a mathematical calculator that verbalizes each number or function (e.g., add, multiply, total) as the respective button is depressed; also verbalizes the numbers showing on the screen.

Task analysis: careful analysis of performance of a task to identify the sequence of steps (observable, measurable behaviors) and skills required to perform the task effectively. The procedure may include analysis of performance of a task under various conditions and by performers having various types of disabilities to identify effective performance variations and compensatory responses.

Teletypewriter. *TTY* is short for teletypewriter. *TDD* is short for Telecommunications Device for the Deaf. These devices are telephone/keyboard hybrids that send keyed messages over telephone lines to a partner device at the other end where the message is either displayed on a screen or printed. TTY is a device that has a typewriter-style keyboard and built-in printer. The device is used to send, receive and print signals received over telephone lines.

Time-out (room): a procedure in which, following performance of an inappropriate behavior, the opportunity to receive all reinforcement is removed from the student for a particular period of time. Either the student is removed from the reinforcing environment (e.g., *Exclusionary* Time out: put into a time-out room), or the reinforcing environment is removed from the student. Although the method involves removal of positive stimuli rather than presentation of aversive stimuli, the consequences may be aversive to the individual. *Observational Time-out* occurs when an individual is placed on the perimeter of preferred activities and must observe without participating or receiving attention or reinforcement. Exclusionary time-out should not be used without approval of a Human Rights Committee (see definition), suitably trained personnel, and appropriate record keeping and supervision. For a detailed description of the procedure, see Baine (1996), *Guide to Assessment and Instruction: Moderate and Severe Disabilities*, Vector International/Educational Psychology, University of Alberta.

Total communication: total communication in schools uses speech, speech reading, amplification, a school-based manual system, gestures and pantomime to communicate with and teach students having hearing disorders.

Tracheostomy: creation of an opening into the trachea through one's neck, with insertion of a tube to facilitate passage of air or evacuation of secretions.

Transfer cranes: a mechanical, electric device used to lift individuals from beds, wheelchairs, toilets and bath tubs to other locations; wheeled cranes use slings to move individuals between rooms.

Transition time: these are the periods between one classroom activity and another. Students return

to the classroom from activities in other parts of the school. One type of instruction finishes, related materials are put away as materials and equipment for a new activity are arranged. Since transition times are often when behavior management problems occur, it is most desirable to plan for rapid and efficient transitions.

Transitional planning: Individual Transition Plan (ITP): an educational plan designed to facilitate a student's move from one setting to another (e.g., from one classroom or school to another, or from school to work). For example, transition planning for school to post-school outcomes may include community experiences provided by families, schools, school to work internships, apprenticeships, experience in independent living centres, vocational rehabilitation, participation in community organizations, counselling services, job awareness, job exploration, career planning, functional vocational evaluation, as well as, daily living skills and social/personal training.

TTY: see Teletypewriter.

Tube feeding: administration of liquids and semi-liquid foods through a nasogastric tube.

U

Unstigmatizing: educational, behavioral and treatment procedures used with people having disabilities should deviate as little as possible from those used with non-disabled peers. The procedures should not attract undue attention, nor in their nature or method of delivery, in any way, devalue or stigmatize the individuals being served. All procedures used should be chronologically age-appropriate, gender appropriate and congruent with the norms established among peers.

V

Valid: a valid test is one that measures what it is being used to measure. For example, a test used to measure mathematics achievement is valid if it measures the mathematics skills it is being used to measure and does not measure other skills like reading. The *Content Validity* of a test can be demonstrated by showing the degree of congruence between the knowledge and skills taught and the knowledge and skills tested. Because special education curricula often deviate from regular education, tests designed for regular education may not have content validity for special education curricula. *Predictive validity* is the statistically demonstrated degree to which a test can predict future performance of some type; prediction is one of the most difficult areas in science. *Concurrent validity* is the statistically demonstrated degree to which a test obtains similar results to those obtained by other tests that measure the same knowledge and skills and that serve as standards against which to judge new tests.

Variable speed tape recorder: these devices are useful for individuals having difficulty decoding oral or printed language. The variable speed permits the individual to slow the tape to a speed at which he/she can decode the message and/or to follow along in the print version. Alternatively, the variable speed permits some users to increase the speed to cover more material faster. This method is useful for cognitively intact students, having visual impairments, as they review lectures and recorded books and notes.

Visual fire alarms: flashing red lights may be used to augment or replace auditory fire alarms in situations frequented by individuals having limited hearing.

Visual cues: in the *Acoupedic Method* of teaching communication, all visual cues including lip reading and interpretation of facial expressions and reference to objects are removed so that learner must rely wholly on the auditory message.

W

Warm-ups: this procedure is used before instruction of new tasks begins. Warm-up of general learning

skills such as sitting, attending and responding to simple, task commands prepares learners for the instruction that is to follow. Familiar tasks that the students can perform correctly are rapidly reviewed to increase their fluency. Skill that are prerequisite to the tasks to be performed are also reviewed and are brought to a high level of fluency before they are integrated into the new tasks being taught.

For further discussion of the methods introduced in the Glossary, see Baine (1996), *Guide to Assessment and Instruction: Moderate and Severe Disabilities*, Vector International/Educational Psychology, University of Alberta.